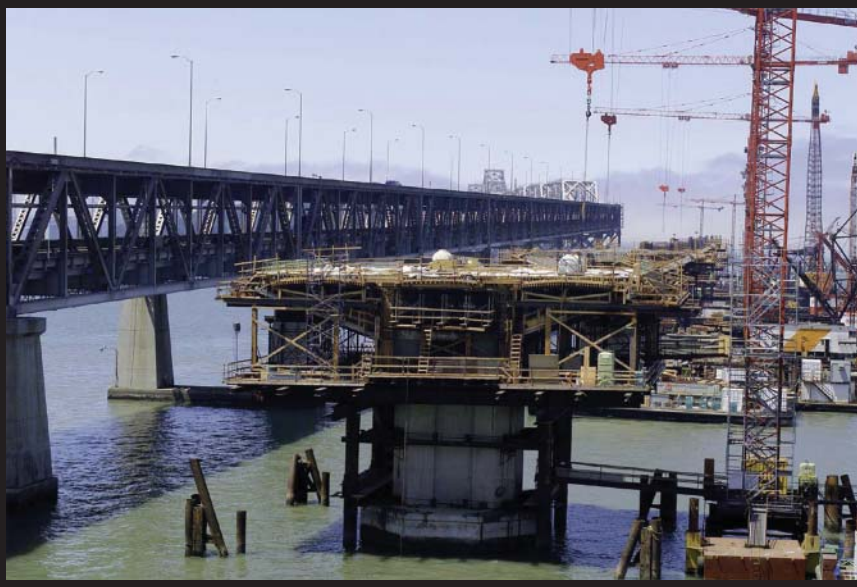
TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

MEETING MATERIALS

October 1, 2008

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION



Caltrans

BAY AREA TOLL AUTHORITY

STATE OF CALIFORNIA
CALIFORNIA TRANSPORTATION COMMISSION

TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Letter of Transmittal

TO: Toll Bridge Program Oversight Committee (TBPOC)

DATE: September 24, 2008

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – October 1 2008

Herewith is the TBPOC Meeting Materials Packet for the October 1 meeting in Changxing, China. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

Final Agenda

TBPOC MEETING
October 1, 2008, 12:30 pm – 2:30 pm
ZPMC
Changxing, China

	Topic	Presenter	Time	Desired Outcome
1.	**CHAIR'S REPORT**	W. Kempton, CT	5 min	Information
2.	**CONSENT CALENDAR** a. September 4, 2008 Meeting Minutes*	A. Fremier, BATA	1 min	Approval
3.	**PROGRESS REPORTS** a. Draft September 2008 Monthly Progress Report*	A. Fremier, BATA	1 min	Information
4.	**SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES** a. Self-Anchored Suspension Superstructure (SAS) 1) Update 2) Team China* b. Yerba Buena Island Transition Structures (YBITS) No. 1 1) Update (matrix)* c. West Approach Book***	 T. Anziano, CT T. Anziano, CT T. Anziano, CT T. Anziano, CT	 45 min 15 min 15 min 15 min	 Information Information Information Approval
5.	**OTHER BUSINESS**	W. Kempton, CT		n/a

Next TBPOC Meeting: November 6, 2008, 10:00 am - 1:00 pm
Lawrence Hall of Science, Berkeley, CA

* Attachments
** Final Documents still in process; to be provided as soon as available.
***Stand alone document included in the binder.

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

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Table of Contents

TBPOC MEETING
October 1, 2008

* Attachments
** Final Documents still in process; to be provided as soon as available
*** Stand-alone document included in the binder

ITEM 1: CHAIR'S REPORT

No Attachments

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 24, 2008

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 2a

Item- Consent Calendar
September 4, 2008 Meeting Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the September 4, 2008 Meeting Minutes.

Attachment:
September 4, 2008 Meeting Minutes

TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

September 4, 2008, 10:00 AM – 1:00 PM
New Benicia-Martinez Bridge Administration Building, Training Room
70 Mococo Road, Martinez

Attendees: TBPOC Members: Will Kempton, Steve Heminger, and John Barna
PMT Members: Tony Anziano, Andy Fremier, and Stephen Maller
Participants: Dave Ambuehl, Ken Brown, Michele DiFrancia, Clive Endress, Mike Forner, Beatriz Lacson, Rick Land, Peter Lee, Brian Maroney, Donald McDonald, Effie Milionis, Dina Noel, Mo Pazooki, Jon Tapping, Ken Terpstra, and Jason Weinstein

Convened: 10:20 AM

Items	Action
1. CHAIR'S REPORT The Chair gave an update on the State budget. • The Department is still able to pay employees on the Program. • It may be a few more weeks before the Legislature acts on this budget.	
2. CONSENT CALENDAR BATA presented the following for TBPOC approval: a. July 10, 2008 TBPOC Meeting Minutes b. July 31, 2008 TBPOC Conference Call Minutes c. Revised 2008 TBPOC Meeting Calendar d. 2009 TBPOC Meeting Calendar	• The TBPOC **APPROVED** the following items, as presented: o July 10, 2008 TBPOC Meeting Minutes, o July 31, 2008 TBPOC Conference Call Minutes, and o 2009 TBPOC Meeting Calendar. • The TBPOC **APPROVED** the Revised 2008 TBPOC Meeting Calendar with the following modification: o Re-schedule the December 4, 2008 TBPOC meeting to the week of December 15.

Items	Action
3. PROGRESS REPORTS a. BATA noted that the PMT approved the July 2008 Monthly Progress Report and the Second Quarter 2008 Report, June 30, 2008, through delegated TBPOC authority, on August 1, 2008. • The final version of the August 2008 Monthly Progress Report was approved by the PMT through delegated TBPOC authority on September 2, 2008, and a copy was distributed to the TBPOC at the meeting. o It was suggested that the report be revisited and rewritten in a clearer format that is more understandable to a lay audience.	• The TBPOC confirmed **APPROVAL** of the following reports through delegated authority to the PMT: o July 2008 Monthly Progress Report, o Second Quarter 2008 Report, June 30, 2008, and o August 2008 Monthly Progress Report.
4. PROGRAM ISSUES a. Opportunity Schedule Update • The Department noted that the Opportunity Schedule is an internal planning document used to identify opportunities to accelerate the overall project. o It is an aggressive schedule but a realistic one by which other contracts can be planned. o It has been in place for over a year. • A Summary Schedule Comparison was distributed, which illustrated the interdependencies among the Self Anchored Suspension Superstructure (SAS), Yerba Buena Island Detour (YBID), Yerba Buena Island Transition Structures (YBITS), and Oakland Touchdown (OTD) contracts presented as the following schedules: 1. Baseline Current Approved Schedule 2. Opportunity Schedule 3. Revised Opportunity Schedule	

Items	Action
4. Snapshot Schedule with CC Myers and ABF reported schedules (SAS + 6 months) Discussion/comments included: o The Snapshot Schedule is the contractor version of the schedule. Although not agreed to, it is not an acceptable scenario to the TBPOC. o In light of current delays in China, as much time savings as possible should be gained to come back to the Baseline Current Approved Schedule. The goal, however, should be to achieve the original Opportunity Schedule, (and not the Revised Opportunity Schedule), i.e., to complete the project in 2012 or earlier. ➢ It was suggested that any revision to the original Opportunity Schedule be called a projection.	• Adjust the original Opportunity Schedule by removing the float and moving the milestone symbol for the ETI RORI by one quarter (from 2nd Qtr 2009 to 3rd Qtr 2009), and continue to plan and manage according to this schedule.
5. SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Self-Anchored Suspension (SAS) Superstructure 1) China Update • ABF and ZPMC are currently having a trial period on schedule acceleration, whereby ZPMC will provide more staff/space and work more quickly than in the past. The TBPOC should be able to observe this during their China visit in early October. o Orthotropic Box Girder (OBG) fabrication is ongoing. o ABF's T. Nielsen is aggressively managing the work in China and producing positive results. • The Department gave a slide presentation on Orthotropic Box	

Items	Action
Girder fabrication. Discussion/comments included: o Deck panel fabrication was highlighted. o Tack welding QC/QA has indicated some cracking in the tack welds. o A proposed repair procedure is under review. The procedure has been developed by D. McQuaid, chair of the American Welding Society (AMS) Bridge Welding Code. o The repair procedure may leave some residual discontinuities. o Additional technical expertise has been consulted, including expertise in fracture mechanics, to insure that this aspect of the repair procedure is best and appropriate. • The need to refine the response time to China issues was recognized. It is essential that a good plan that will function over time be in place to expedite resolution of issues, in order to meet the Opportunity Schedule. 2) TBPOC China Itinerary • CTC gave a brief summary and indicated that a dinner with ZPMC's Mr. Guan is being arranged. b. Yerba Buena Island Detour (YBID) 1) Update • The Department reported that activity on the contract is going well. 2) Contract Change Order (CCO) 140 • The Department presented for TBPOC approval CCO 140, in the	• The TBPOC **APPROVED** CCO 140, as presented.

Items	Action
amount of $10.9 million, for the steel truss fabrication of the East Tie-In structure. o The increase of $3.4 million from the original estimate of $7.5 million will mostly cover additional design requirement. o The CCO is within budget. • To better understand the changes in the budget, the TBPOC suggested that there be consistency in the graphics, i.e., balance beams, presented in supporting documents. c. Yerba Buena Island Transition Structure (YBITS) No. 1 • The Department indicated that the matrix developed to track the open issues on this contract will be modified to highlight any changes. o A decision on the bid opening date will be made in November. • The TBPOC reiterated the preference for using addenda rather than CCOs, as much as possible, to incorporate anticipated contract changes. d. Oakland Touchdown No. 1 • The Department noted that the project is on schedule and progressing well. • There is a strong partnership developing with the contractor MCM. • OSHA is reporting positively on the safety front. e. Bridge Aesthetics • The Department gave, for TBPOC information, a presentation on	

	Items	Action
	Bridge Context/Architecture, covering: Color Contrast, Proposed Color Scheme, Three Options for Bridge Color, Bridge Lighting/Light Pipe, and Suggested Next Steps for Lighting. A copy of the presentation was distributed at the meeting. • It was recommended that a prototype test light pipe be installed off of the Skyway for testing, at an estimated cost of $5oo,000.	• Defer TBPOC decision to install a prototype test light pipe at a TBPOC meeting later in the year. Staff to continue to update the TBPOC.
6	**NEW BENICIA-MARTINEZ BRIDGE** • The Department conducted a drive-through of the project site after the meeting adjourned.	
7	**OTHER BUSINESS** • N/A	

Adjourned: 12:30 PM

MEETING MINUTES
September 4, 2008, 10:00 AM – 1:00 PM
New Benicia-Martinez Bridge Administration Building, Training Room
70 Mococo Road, Martinez

APPROVED BY:

_____ _____
WILL KEMPTON, Director Date
California Department of Transportation

_____ _____
JOHN F. BARNA, Jr., Executive Director Date
California Transportation Commission

_____ _____
STEVE HEMINGER, Executive Director Date
Bay Area Toll Authority

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE
CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 24, 2008

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 3a
Item- Progress Report
Draft September 2008 Monthly Progress Report

Recommendation:
For Information Only

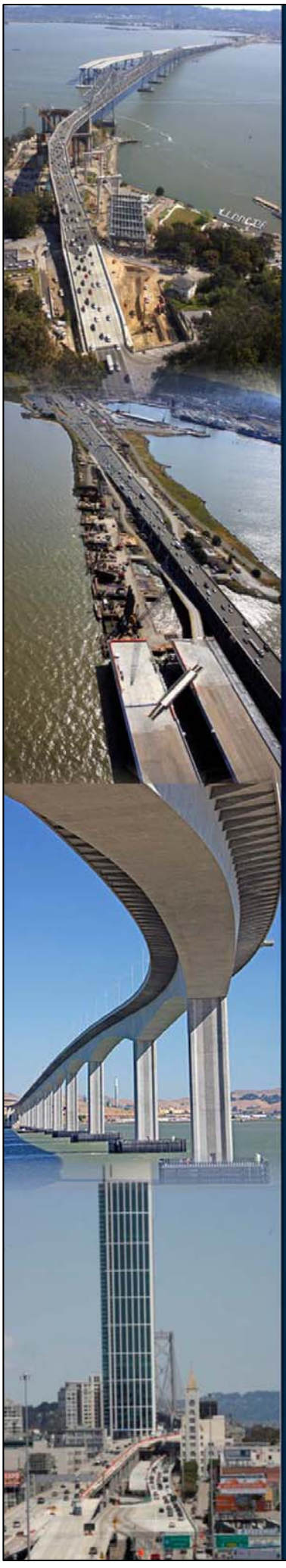
Cost:
N/A

Schedule Impacts:
N/A

Discussion:
Attached is a draft September 2008 Monthly Progress Report for your information.

As soon as updated expenditure data and the latest comments are incorporated, the final version will be approved by the PMT through delegated TBPOC authority.

Attachment:
Draft September 2008 Monthly Progress Report



Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Monthly Progress Report
September 2008

TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: October 2008

Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Monthly Progress Report
September 2008

URS Hatch Mott MacDonald
Bay Area Management Consultants
An Association of URS Corporation and Hatch Mott MacDonald

Version 4.0.2

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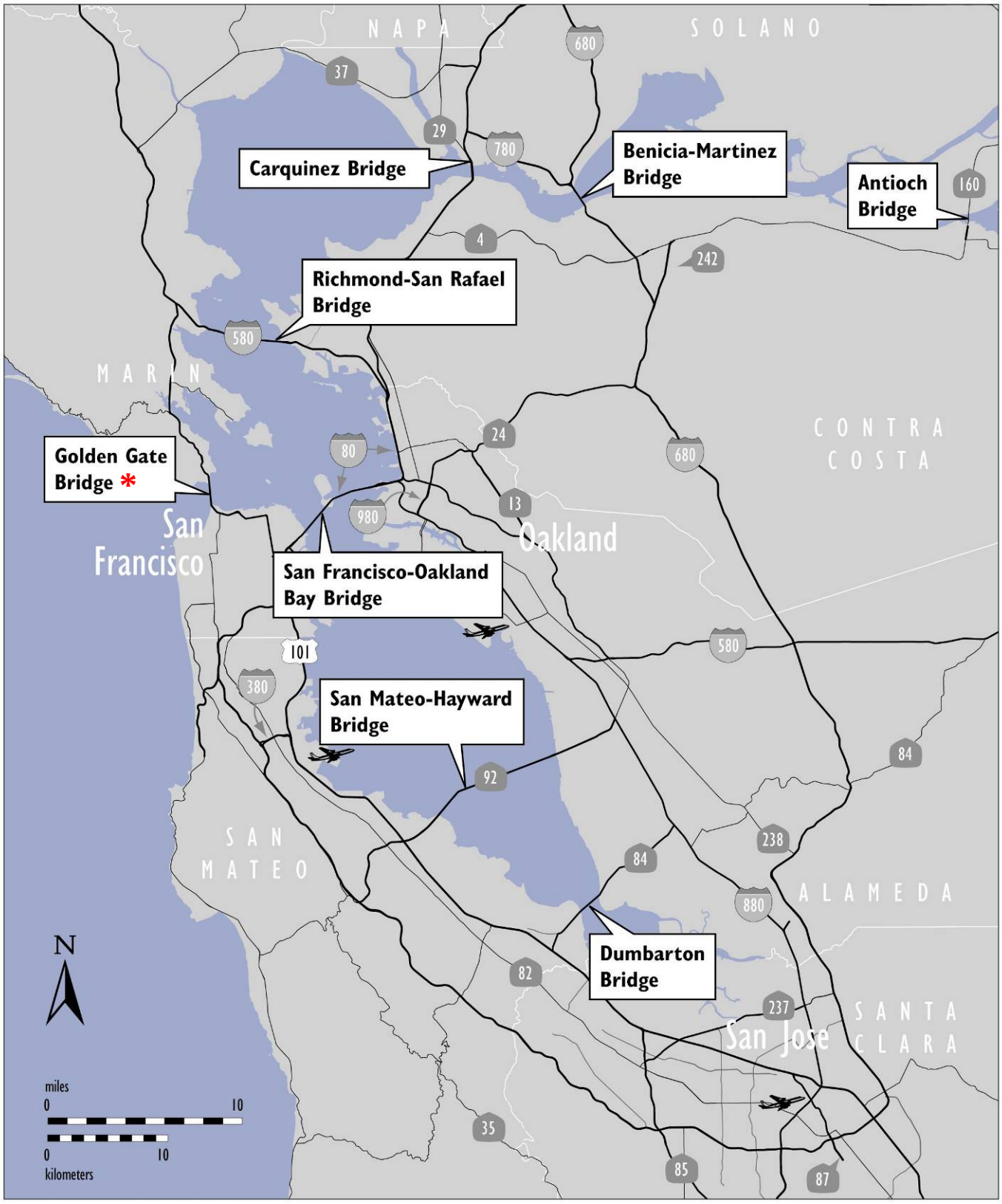
Toll Bridges of the San Francisco Bay Area



* *Under the Jurisdiction of the Golden Gate Bridge, Highway and Transportation District*
Note: Details may not sum to totals due to rounding effects.

INTRODUCTION

In July 2005, Assembly Bill 144, (AB 144) Hancock created the Toll Bridge Project Oversight Committee (TBPOC) to implement a project oversight and project control process for the state toll bridge seismic retrofit program projects and the Benicia-Martinez Bridge project. The TBPOC comprises the Director of the California Department of Transportation (Caltrans) the Executive Director of the Bay Area Toll Authority (BATA) and the Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of $1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as being under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Eastbound Carquinez Bridge Seismic Retrofit	Complete
New Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects, called the Regional Measure 1 (RM1) Toll Bridge Program, under the responsibility of the BATA. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

RM1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Construction
Old Benicia-Martinez Bridge Reconstruction	Construction
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

This report focuses on identifying critical project issues and monitoring project cost and schedule performance for the projects as measured against approved budgets and schedule milestones. This report is intended to fulfill Caltrans' requirement to provide monthly project progress reporting to the TBPOC under Section 30952.05 of the Streets and Highway Code.

EXECUTIVE SUMMARY

Toll Bridge Seismic Retrofit Program—Cost ($ Millions)

Project	Work Status	AB 144 / SB 66 Budget (07/20/05)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
SFOBB East Span Replacement Project								
Capital Outlay Support		959.3	-	959.3	630.1	977.1	17.8	●
Capital Outlay Construction								
Skyway	Complete	1,293.0	(38.9)	1,254.1	1,236.4	1,254.1	-	●
SAS E2/T1 Foundations	Complete	313.5	(32.6)	280.9	273.0	280.9	-	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	497.4	1,767.4	13.7	●
YBI Detour	Design/Const	132.0	310.2	442.2	205.2	461.2	19.0	●
YBI Transition Structures		299.3	(23.2)	276.1	-	276.1	-	●
* YBITS Contract No. 1	Design				-	214.3		
* YBITS Contract No. 2	Design				-	58.5		
* YBITS Contract No. 3 - Landscape	Design				-	3.3		
Oakland Touchdown (OTD)		283.8	-	283.8	109.7	302.5	18.7	
* OTD Submarine Cable	Complete				7.9	9.6		●
* OTD No. 1 (Westbound)	Construction				101.9	226.5		●
* OTD No. 2 (Eastbound)	Design				-	62.0		●
* OTD Electrical Systems	Design				-	4.4		●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Complete	15.0	3.3	18.3	16.5	18.3	-	●
East Span Completed Projects		90.3	-	90.3	89.2	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	39.3	72.4	-	●
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)	
Total SFOBB East Span Replacement Project		5,486.6	215.5	5,702.1	3,097.5	5,730.0	27.9	
SFOBB West Approach Replacement	Construction							●
Capital Outlay Support		120.0	-	120.0	108.3	120.0	-	
Capital Outlay Construction		309.0	24.7	333.7	286.5	350.7	17.0	●
Total SFOBB West Approach Replacement		429.0	24.7	453.7	394.8	470.7	17.0	
Richmond-San Rafael Bridge Retrofit	Complete							●
Capital Outlay Support		134.0	(7.0)	127.0	126.7	127.0	-	
Capital Outlay Construction & Right-of-Way		780.0	(90.5)	689.5	668.1	689.5	-	
Total Richmond-San Rafael Bridge Retrofit		914.0	(97.5)	816.5	794.8	816.5	-	
Program Completed Projects	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	699.0	705.6	-	
Total Program Completed Projects		925.4	-	925.4	918.4	925.4	-	
Miscellaneous Program Costs		30.0	-	30.0	24.7	30.0	-	
Program Contingency		900.0	(142.7)	757.3	-	712.4	44.9	
Total Toll Bridge Seismic Retrofit Program		8,685.0	-	8,685.0	5,230.2	8,685.0	-	

● *Within Approved Current Schedule and Budget*
● *Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation*
● *Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming*

**Current contract allotment to install two submarine electrical cables is $11.5 million. Additional non-program funding to support this allocation beyond the $9.6 million of available program funds has been made available by the Treasure Island Development Authority.*

Notes: Details may not sum to totals due to rounding effects.
Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

Toll Bridge Seismic Retrofit Program—Schedule

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (07/2008)	Project Complete Schedule Forecast (07/2008)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e – d	g	h
SFOBB East Span Replacement Project							
Skyway	Apr 07	8	Dec 07	Dec 07	-	●	See page 10.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Jan 08	(2)	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	See discussion on page 12.
YBI Detour	Jul 07	36	Jun 10	Jun 10	-	●	See discussion on pages 16.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	●	
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	See Note.
• OTD Submarine Cable	n/a		Jan 08	Jan 08	-	●	
• OTD Westbound	n/a		Jan 10	Jan 10	-	●	
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	See Note.
Stormwater Treatment Measures	Mar 08	-	Mar 08	Mar 08	-	●	
♦ Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	●	See Note.
♦ Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	●	See Note.
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Jan 09	(7)	●	
♦ Open to Traffic Date: Mainline Realignment	n/a	-	Apr 08	Apr 08	-	●	Opened to traffic April 12, 2008
Richmond-San Rafael Bridge							
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of contract October 28, 2005. $89 million has been transferred to Program Contingency.
• Public Access Project	n/a	-	May 07	Sept 07	4	●	See page 35.

Note: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB144/SB66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract.

Regional Measure 1 Program—Cost ($ Millions)

Project	Work Status	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
New Benicia-Martinez Bridge Project	Construction							●
Capital Outlay Support		157.1	35.2	192.3	182.6	192.3	-	
Capital Outlay Construction		861.6	173.5	1,035.1	967.2	1,035.1	-	
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	16.9	20.3	-	
Project Reserve		20.8	4.0	24.8	-	24.8	-	
Total New Benicia-Martinez Bridge Project		1,059.9	212.6	1,272.5	1,166.7	1,272.5	-	
Carquinez Bridge Replacement Project	Complete							●
Capital Outlay Support		124.4	(0.2)	124.2	123.5	123.6	(0.6)	
Capital Outlay Construction		381.2	3.2	384.4	376.1	384.5	0.1	
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-	
Project Reserve		12.1	(3.0)	9.1	-	0.6	(8.5)	
Total Carquinez Bridge Replacement Project		528.2	-	528.2	509.5	519.2	(9.0)	
I-880/SR-92 Interchange Reconstruction	Construction							●
Capital Outlay Support		28.8	26.2	55.0	40.8	55.0	-	
Capital Outlay Construction		94.8	60.2	155.0	29.6	155.0	-	
Capital Outlay Right-of-Way		9.9	7.0	16.9	11.0	16.9	-	
Project Reserve		0.3	17.8	18.1	-	18.1	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	81.4	245.0	-	
Program Completed Projects	Complete							
Capital Outlay Support		62.0	(5.0)	57.0	57.5	58.8	1.8	
Capital Outlay Construction		324.4	3.6	328.0	308.0	313.0	(15.0)	
Capital Outlay Right-of-Way		1.7	-	1.7	0.5	0.8	(0.9)	
Project Reserve		2.6	1.4	4.0	-	7.1	3.1	
Total Program Completed Projects		390.7	-	390.7	366.0	379.7	(11.0)	
Total Regional Measure 1 Program		2,112.6	323.8	2,436.4	2,123.6	2,416.4	(20.0)	

● *Within Approved Current Schedule and Budget*

● *Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation*

● *Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming*

Note: Details may not sum to totals due to rounding effects.

Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

Regional Measure 1 Program—Schedule

Project	BATA Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (07/2008)	Project Complete Schedule Forecast (07/2008)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
New Benicia-Martinez Bridge Project							
• Existing Bridge & Interchange Modifications	Dec 09	-	Dec 09	Dec 09	-	●	
• Open to Traffic Date	Dec 07	-	Aug 07	Aug 07	(3)	●	
I-880/SR-92 Interchange Reconstruction	Dec 10	-	Jun 11	Jun 11	6	●	Contract was awarded on August 28, 2007 with the approval of the State budget.

Highlights of Project/Program Activities and TBPOC Actions for September 2008

Toll Bridge Seismic Retrofit Program

SFOBB East Span Seismic Replacement Project

- On the Self-Anchored Suspension Span Contract, Caltrans and its contractor are continuing to fabricate the steel tower and roadway segment in China. On Yerba Buena Island, work has started on the temporary support structures on which the new bridge will be erected.
- On the Yerba Buena Island Detour contract, the detour viaduct is being erected south of the existing bridge. The foundations for the west tie-in structure from the detour viaduct to the tunnel are being constructed and the steel truss for the east tie-in structure from the detour viaduct to the existing bridge is being fabricated in Arizona.
- On the Oakland Touchdown #1 contract, foundations for the westbound structure have been constructed. The superstructure work is now in progress. Foundations are being installed for the eastbound structure.
- On the Yerba Buena Island Transition Structures #1 contract, the Caltrans held a bidder's conference to discuss the contract on September 18, 2008

New Benicia-Martinez Bridge Project

- Southbound traffic is now on the east side of the old Benicia-Martinez Bridge.
- Work is now proceeding on rehabilitation of the east side of the bridge deck and repair of undulations south of the Marina Vista Boulevard interchange.

Interstate 880/State Route 92 Interchange Reconstruction Project

- Temporary support structures have been erected across Interstate 880 for the eastbound State Route 92 to northbound Interstate 880 fly-over structure. Work is proceeding on constructing the fly-over, retaining walls and grading work.

Bridge Fabrication in China - Roadway Box – East bound Segment

PROJECT / CONTRACT REPORTS

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

- Skyway Contract
- Self-Anchored Suspension (SAS) E2/T1 Foundations Contract
- Self-Anchored Suspension (SAS) Superstructure Contract
- Yerba Buena Island (YBI)
    - Yerba Buena Island (YBI) Detour Contract
    - Yerba Buena Island (YBI) Transition Structure Contracts
- Oakland Touchdown (OTD)
    - Oakland Touchdown (OTD) Submarine Cable Relocation Contract
    - Oakland Touchdown (OTD) #1 Contract
    - Oakland Touchdown (OTD) #2 Contract
- Other Major Contracts
- Other Contracts and Related Project Work

San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

Other Completed Seismic Retrofit Projects

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

Project Description: The East Span will be seismically retrofitted through the complete replacement of the existing span. The remaining effort for this project consists of the following contracts: SAS Superstructure—construction of a self-anchored 385-meter main span superstructure incorporating a 160-meter fabricated structural steel tower with a main cable and inclined suspenders that will support steel orthotropic box girder decks; Yerba Buena Island (YBI) Detour—design and construction of a temporary double-deck bypass structure that will detour traffic to the existing SFOBB while completing the westerly permanent tie-in structure of the new East Span at Yerba Buena Island; YBI Structures—construction of a new structure connecting the western end of the self-anchored suspension to the Yerba Buena Island viaduct, which will be retrofitted; Oakland Touchdown—at the Oakland end of the East Span, construction of two parallel, cast-in-place post-tensioned concrete viaducts, which join the Skyway to the at-grade Oakland approach fill; and Existing Bridge Demolition—demolition of the existing 1936 SFOBB East Span structure after the construction and placement of traffic onto the new East Span.

SFOBB East Span Replacement Cost Summary ($ Millions)

Contract	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.3	-	959.3	630.1	977.1	17.8
Capital Outlay	-	-	-	-	-	-
Skyway	1,293.0	(38.9)	1,254.1	1,236.4	1,254.1	-
SAS E2/T1 Foundations	313.5	(32.6)	280.9	273.0	280.9	-
SAS Superstructure	1,753.7	-	1,753.7	497.4	1,767.4	13.7
YBI Detour	132.0	310.2	442.2	205.2	461.2	19.0
YBI Transition Structures	299.3	(23.2)	276.1	-	276.1	-
* YBITS 1				-	214.3	
* YBITS 2				-	58.5	
* YBITS 3 - Landscape				-	3.3	
Oakland Touchdown	283.8	-	283.8	109.7	302.5	18.7
* OTD Submarine Cable				7.9	9.6	
* OTD Westbound				101.9	226.5	
* OTD Eastbound				-	62.0	
* OTD Electrical Systems				-	4.4	
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	3.3	18.3	16.5	18.3	-
East Span Completed Projects	90.3	-	90.3	89.2	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	39.3	72.4	-
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
TOTAL	5,486.6	215.5	5,702.1	3,097.5	5,730.0	27.9

SFOBB East Span Replacement Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	-
YBI Detour*	July 2007	36	June 2010	June 2010	-
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Oakland Touchdown (OTD)	November 2013	12	December 2014	December 2014	-
* OTD Submarine Cable	n/a		January 2008	January 2008	-
* OTD No. 1 (Westbound)	n/a		January 2010	January 2010	-
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	November 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-

**Contract schedules being further assessed due to changes in SAS schedule.*

Project Status: Construction is complete for the Skyway, SAS E2/T1 Foundations and Stormwater Treatment Measures contracts. Construction is currently ongoing for the YBI Detour, SAS Superstructure, and OTD #1 (Westbound) contracts. Contracts in design include the OTD #2 (eastbound), YBITS Contract #2 and the Existing Bridge Demolition contract. Design of each contract is proceeding per its schedule requirements. The YBI Transition Structure (YBITS) Contract #1 has been advertised.

Project Issues: All projects except Demolition have a Risk Response Team and a Risk Register incorporating quantitative risk analyses. A risk register has also been developed for Capital Outlay Support (COS) costs, as well as a program-level risk register that captures risks common to all project. The development of a quantitative COS risk analysis is ongoing and is trending higher COS costs for the project.

The Risk Response Team for COS is evaluating the program costs and is developing response actions to mitigate. Many of the actions have been effective, as evidenced by a reduction of risk impacts on the Skyway and E2/T1 contracts from the previous quarter. The effort to develop and execute risk response actions to mitigate the cost and schedule impacts posed by risk issues continues to be a high priority.

Recent TBPOC Actions: See the following contract detail pages for specific TBPOC actions on East Span contracts.

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

SKYWAY CONTRACT

Contract Description: On the SFOBB East Span Seismic Replacement Project, the Skyway contract constructed twin pre-cast concrete segmental bridges that will connect the Oakland approach traffic to the new SAS.

Skyway Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - Skyway						
Capital Outlay Support	197.0	(16.0)	181.0	180.4	181.0	-
Capital Outlay Construction	1,293.0	(38.9)	1,254.1	1,236.4	1,254.1	-
TOTAL	1,490.0	(54.9)	1,435.1	1,416.8	1,435.1	-

Note: Details may not sum to totals due to rounding effects.

Skyway Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
East Span - Skyway	April 2007	8	December 2007	December 2007	-

Contract Status:

- The contract was substantially completed by the end of 2007 and Caltrans accepted the Skyway Contract on March 24, 2008 upon completion of final punchlist items. The TBPOC is forecasting that the $1,293.0 million Skyway contract will be closed-out with $38.9 million in project savings that can be returned to the program contingency.

Contract Issues: None.

Recent TBPOC Actions: None.

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

SELF-ANCHORED SUSPENSION (SAS) E2/T1 FOUNDATIONS CONTRACT

Contract Description: The Self Anchored Suspension (SAS) Span E2/T1 Foundation contract constructed the main tower foundation at location T1 and the foundations and columns of the first pier east of the main tower at location E2 in San Francisco Bay. The foundations and columns of the first pier west of the main tower located at W2 on Yerba Buena Island were completed under a separate earlier contract.

SAS E2/T1 Foundations Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	52.5	(21.5)	31.0	28.2	31.0	-
Capital Outlay Construction	313.5	(32.6)	280.9	273.0	280.9	-
TOTAL	366.0	(54.1)	311.9	301.2	311.9	-

Note: Details may not sum to totals due to rounding effects.

SAS E2/T1 Foundations Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
East Span - SAS E2 / T1 Foundations	June 2008	(3)	March 2008	January 2008	(2)

Contract Status:

- The SAS E2/T1 Marine Foundations Contract was completed and accepted by Caltrans on January 18, 2008. With completion of this contract, all foundations for the SAS have now been completed.
- The TBPOC is forecasting that the $313.5 million E2/T1 contract will be closed out with $32.6 million in forecasted savings that can be returned to the program contingency.

Contract Issues: None.

Recent TBPOC Actions: None.

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE CONTRACT

Contract Description: The Self-Anchored Suspension (SAS) Superstructure contract constructs a signature tower span between the Skyway and the Yerba Buena Island transition structure. Work on the SAS bridge has been split between three contracts—the SAS Superstructure (under construction), the SAS E2/T1 Foundation (completed), and the SAS W2 Foundation (completed).

SAS Superstructure Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	214.6	-	214.6	97.2	214.6	-
Capital Outlay Construction	1,753.7	-	1,753.7	497.4	1,767.4	13.7
TOTAL	1,968.3	-	1,968.3	594.6	1,982.0	13.7

Note: Details may not sum to totals due to rounding effects.

SAS Superstructure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
East Span - SAS Superstructure	March 2012	12	March 2013	March 2013	-

Contract Status:

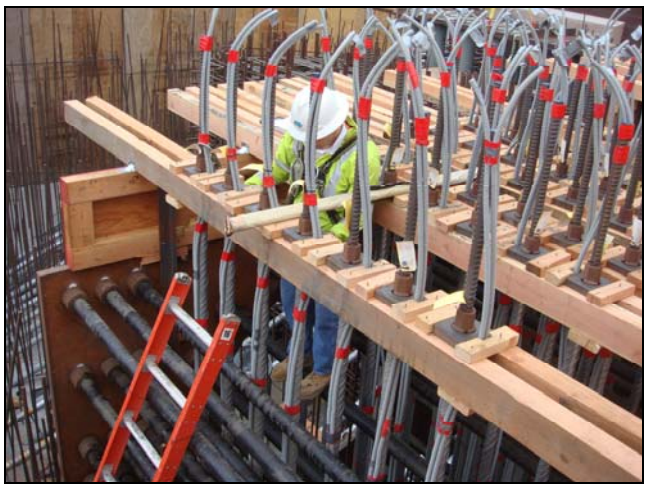
- The SAS bridge contract was 32 %completed based on the expended value of the contract as of the end of August 2008.
- Ongoing field and marine work includes completing the reinforced concrete supports **(see photo #13.1 and #13.2)** on both sides of the main tower that will support the ends of steel roadway deck of the SAS bridge.
- The contractor is erecting the temporary steel supports upon which the steel roadway deck will be supported prior to load transfer to the permanent main cable **(see photos #13.3 and #13.4).**
- Bridge fabrication continues at a number of off site locations around the world with the steel bridge deck sections and first two sections of the steel tower being made in China **(see photos #14.1 through #14.5).** The cable saddles are being fabricated in Japan and the temporary supports are being fabricated both here in the United States and in Asia.
- A large barge-mounted crane to be used to help erect the new bridge is being assembled in China. The barge was manufactured in Portland, Oregon. The completed crane barge will be shipped to the Bay Area by late 2008 **(see photo #14.6).**

Contract Issues:

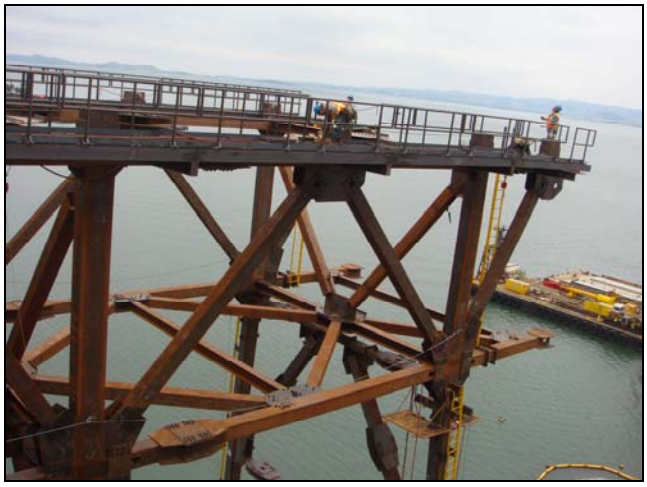
Issue	Mitigating Action
The SAS contractor has stated that the fabrication schedule for the Orthotropic Box Girder (OBG) is 4-5 months behind schedule. While not yet on the critical path for the project, this delay may increase and result in additional cross-impacts to the corridor schedule.	The contractor and Caltrans are developing opportunities for acceleration to mitigate this delay.
Potential for cost increases during construction due to steel plate conflicts. Applies to structural steel, including the towers and box girders.	Establish Working Drawing Campus with Contractor to facilitate discussion about conflicts and meet regularly. Caltrans has constructed models and identified conflicts, for which CCOs are to be prepared.

Recent TBPOC Actions: None

(13.1) *Pier E2 Crossbeams Forms and Rebar*



(13.2) *Pier E2 Crossbeams Forms and Rebar*



(13.3) *Temporary Steel Support Towers and Trusses*

(13.4) *Temporary Steel Support Towers and Trusses*

Contract Photographs from Changxing Island, China

(14.1) *Tower Diaphragm*

(14.2) *E43M Double Diaphragm - T1 Tower*

(14.3) *Deck Panel Diaphragm Plate Installation - WB*

(14.4) *Roadway Box – Top Deck – Panel Assembly*

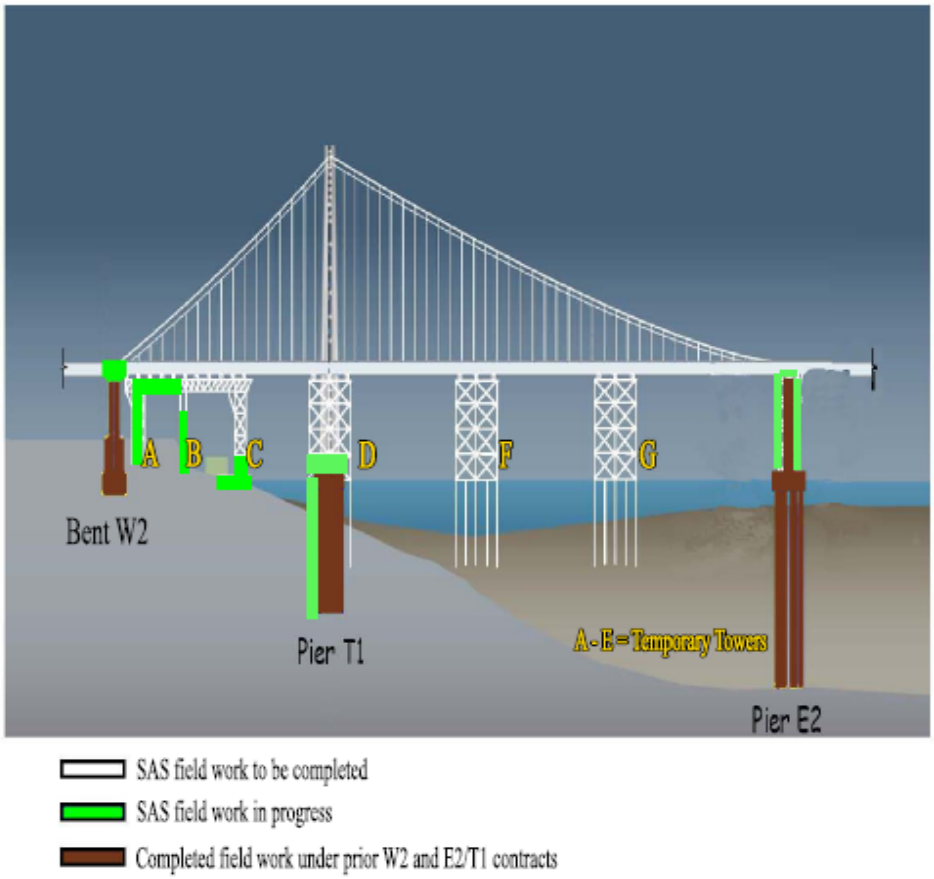
(14.5) *Tower Steel Plate – Heated*

(14.6) *Barge Crane*

(15.1) *Roadway Box WB Including Super Panels*

(15.2) *Two Total Super Panels on 4AW Segment*

SAS Superstructure Construction Progress



Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

YERBA BUENA ISLAND DETOUR (YBID)

Contract Description: The YBI Detour constructs a temporary detour from the YBI tunnel to the existing east span of the Bay Bridge. This detour maintains traffic on the existing bridge while the YBI Transition Structure Contract completes the tie-in from the SAS to the existing tunnel.

YBI Detour Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
YBI Detour						
Capital Outlay Support	29.4	36.6	66.0	46.5	66.0	-
Capital Outlay Construction	132.0	310.2	442.2	205.2	461.2	19.0
TOTAL	161.4	346.8	508.2	251.7	527.2	19.0

Note: Details may not sum to totals due to rounding effects.

YBI Detour Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2010)	Contract Complete Schedule Forecast (07/2010)	Schedule Variance (Months)
YBI Detour *	July 2005	40	June 2010	June 2010	-

** Contract schedule under assessment. See Contract Issues on the following page.*

Contract Status:

- The TBPOC has approved a number of scope and schedules changes to better time the opening of the detour with the current revised project schedule. Along with pacing the construction of the detour bridge for an opening in mid to late 2009, select bridge work for the Yerba Buena Island transition structures was advanced on the detour contract to minimize schedule risks from construction delays on bridge foundations.
- On the main detour, erection of the main roadway bridge continues with several spans now in place **(see photos #17.1 and #17.2).** Work on the west tie-in to the YBI tunnel continues with construction of concrete bridge supports. The east tie-in support foundation system is currently being constructed on the island, while fabrication of the roll-in truss has started in Arizona.
- On the advanced work from the Yerba Buena Island Transition contract, work is proceeding on a number of foundations and columns **(see photos #19.1 through #19.4).**

Contract Issues: None.

Recent TBPOC Actions: None.

Contract Issues:

Issue	Mitigating Action
Caltrans will need to negotiate a number of contract change orders to implement the aforementioned changes to the contract.	The TBPOC has approved a plan of action to implement the changes. Caltrans is currently negotiating outstanding contract changes.

Contract Photographs

(17.1) *Detour Viaduct Span 50*

(17.2) *Detour Viaduct Span 48 Lower Deck Concrete*

(17.3) *Detour Viaduct and YBITS Columns beneath Existing Bridge*

(17.4) *Detour Viaduct Spans 48 to 50*

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

YBI TRANSITION CONTRACTS (YBITS)

Contract Description: The YBI Transition Structure contracts will construct the mainline YBI transition structures (YBITS) that will connect the SAS portion of the new bridge to the newly rolled in WTI Phase I structure. YBITS #1 will construct the mainline approach structure from the new bridge to the WTI Phase I structure. YBITS #2 will demolish the YBI Detour temporary structure, complete the new eastbound on-ramp, reconstruct local affected facilities at YBI and complete the bike path from the SAS to YBI (except for a section of the path that conflicts with existing column E1). That section of the path is contemplated to be completed in the demolition contract. A YBI landscaping contract will restore slopes and vegetation in areas affected by the YBI construction.

YBI Transition Structure Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	78.7	-	78.7	20.7	78.7	-
Capital Outlay Construction						
YBITS Contract #1				-	214.3	
YBITS Contract #2				-	58.5	
YBITS Contract #3 - Landscape				-	3.3	
Total Capital Outlay Construction	299.3	(23.2)	276.1	-	276.1	-
TOTAL	378.0	(23.2)	354.8	20.7	354.8	-

Note: Details may not sum to totals due to rounding effects.

YBI Transition Structure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (06/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
YBI Transition Structure	November 2013	12	November 2014	November 2014	-

Contract Status:

- The Yerba Buena transition structure #1 contract was advertised on August 11, 2008. Caltrans held a contractor's outreach for the contract in September 2008.
- The remaining Yerba Buena Island bridge contracts will be advertised at a later date per the project schedule.
- Some foundations and columns for the transition structure are currently being installed by the YBID contract **(see photos #19.1 through #19.4 and the Project Progress Diagram in Appendix D).**

Contract Issues: None.

Recent TBPOC Actions: None.

Contract Photographs

(19.1) *YBITS Column W3R Foundation*

(19.2) *YBITS W4L and W4R*

(19.3) *YBITS W7 Soil Nail Wall North*

(19.4) *YBITS W7 Soil Nail Wall South*

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

OAKLAND TOUCHDOWN CONTRACTS

Contract Descriptions: The Oakland Touchdown #1 Contract includes construction of all marine foundations, and land foundations (except for the eastbound abutment), westbound bridge section, and one frame of the eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. The Oakland Touchdown #2 Contract includes construction of the remaining eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This work would occur once the westbound traffic is shifted onto the new westbound bridge, including the SAS. The Submarine Cable Relocation Contract replaced the existing submarine electrical cable from Oakland to Treasure Island and was completed ahead of the OTD Contract #1 which avoided potential construction conflicts.

Oakland Touchdown Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	74.4	-	74.4	39.9	92.1	17.7
Capital Outlay Construction						
OTD Submarine Cable	-	-	-	7.9	9.6	-
Oakland Touchdown #1	-	-	-	101.9	226.5	-
Oakland Touchdown #2	-	-	-	-	62.0	-
Oakland Touchdown Electrical	-	-	-	-	4.4	-
Total Capital Outlay Construction	283.8	-	283.8	109.7	303.5	18.7
TOTAL	358.2	-	358.2	149.6	394.6	36.4

Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.

Oakland Touchdown Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (6/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
OTD Submarine Cable	-	-	January 2008	January 2008	-
Oakland Touchdown #1	-	-	January 2010	January 2010	-
Oakland Touchdown #2	-	-	November 2014	November 2014	-

Contract Status

- The Oakland Touchdown #1 contract was 54% completed based on the expended value of the contract as of the end of August 2008 **(see progress diagram in Appendix E).**
- On the westbound approach bridge, the contractor has completed all foundation work and is now proceeding on the installation of temporary support falsework and reinforcement steel for the approach.
- Work is ongoing on the foundations for the eastbound approach bridge **(see photos #21.1 through #21.6 on the facing page).**
- The submarine cable relocation contract was competed in January 2008 and the Oakland Touchdown #2 contract is in design and will be advertised at a later date per the project schedule.

Contract Issues: None.

Recent TBPOC Actions: None.

Contract Photographs

(21.1) *Pier E17R – Footing Rebar Installation in Progress*

(21.2) Pier *E18R - Placed CISS Cage and Poured Concrete*

(21.3) Pier *E20R Pile Driving & Welding Work in Progress*

(21.4) *Installation of Soffit Deck in Progress for WB Frame 2*

(21.5) *Looking West from the WB Frame 1 Deck at the East End of the Skyway Deck*

(21.6) *Looking East at the Remaining WB Frame 1 Deck*

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

OTHER CONTRACTS

Contract Description: Other major contracts include the Stormwater Treatment Measures contract, which will implement best practices for storm water runoff treatment at the SFOBB toll plaza and approaches to the SFOBB toll plaza and the Existing Bridge Demolition contract, which will include the complete removal of the existing 1936 east span following the opening of the new bridge.

Other Major Contracts Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (6/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	85.7	2.0	87.7	8.2	87.7	-
Capital Outlay Construction						-
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
StormwaterTreatment Measures	15.0	3.3	18.3	16.5	18.3	-
Total Capital Outlay Construction	254.2	3.3	257.5	16.5	240.3	(17.2)
TOTAL	339.9	5.3	345.2	24.7	328.0	(17.2)

Note: Details may not sum to totals due to rounding effects.

Other Major Contracts Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)	% Design Comp.
Existing Bridge Demolition	September 2014	12	September 2015	September 2015	-	10
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-	N/A

Contract Status:

Stormwater Treatment Measures: The contract was accepted in December 2007.

Bridge Demolition: Design work has been temporarily suspended to assign engineering resources to higher priority tasks, and will resume at a later time. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension. The $17.2 million decrease in construction costs for the Existing Bridge Demolition contract is due to a re-evaluation of cost escalation rates for the contract.

Contract Issues: None.

Recent TBPOC Actions: None

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

OTHER COMPLETED CONTRACTS AND RELATED WORK

Summary Description: Substantial work has already been performed on the SFOBB East Span Replacement project to facilitate construction of the mainline construction contracts.

Other Contracts and Related Work Cost Summary ($ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	227.0	(1.0)	226.0	209.0	226.0	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	39.3	72.4	-
Capital Outlay Construction						-
SAS W2 Foundations	26.4	-	26.4	25.8	26.4	-
YBI/SAS Archaeology	1.1	-	1.1	1.1	1.1	-
YBI - USCG Road Relocation	3.0	-	3.0	2.8	3.0	-
YBI - Substation and Viaduct	11.6	-	11.6	11.3	11.6	-
Oakland Geofill	8.2	-	8.2	8.2	8.2	-
Pile Installation Demonstration Project	9.2	-	9.2	9.2	9.2	-
Existing East Span Retrofit	30.8	-	30.8	30.8	30.8	-
Total Capital Outlay Construction Completed	90.3	-	90.3	89.2	90.3	-
TOTAL	389.7	(1.0)	388.7	337.5	388.7	-

Note: Details may not sum to totals due to rounding effects.

Other Contracts and Related Work Schedule Summary

Project	Actual Project Completion Date
Existing East Span Retrofit	March 1998
Interim Retrofit	July 2000
Pile Installation Demolition Project	December 2000
YBI / SAS Archaeology	January 2003
Oakland Geofill	April 2003
YBI – USCG Road Relocation	June 2004
SAS W2 Foundations	October 2004
YBI Substation and Viaduct	May 2005

Summary Status: Construction has been completed on the above-listed contracts. Caltrans continues to work with various environmental agencies to conduct compliance inspections and monitor and mitigate any environmental impacts from the project.

Contract Issues: None.

Recent TBPOC Actions: None.

Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

Project Description: The SFOBB West Approach Replacement Project will replace the entire west approach structure from 5th Street to the west anchorage of the existing west spans of the SFOBB while maintaining existing traffic lanes for the weekday commute.

SFOBB West Approach Replacement Cost Summary ($ Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
West Approach						
Capital Outlay Support	120.0	-	120.0	108.3	120.0	-
Capital Outlay Construction	309.0	24.7	333.7	286.5	350.7	17.0
TOTAL	429.0	24.7	453.7	394.8	470.7	17.0

Note: Details may not sum to totals due to rounding effects.

SFOBB West Approach Replacement Schedule Summary

Project	AB 144/SB 66 Project Completion Baseline (07/2006)	Approved Changes (Months)	Project Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
West Approach	August 2009	-	August 2009	January 2009	(7)
Open-to-Traffic Date: Mainline Realignment			April 2008	April 2008	-

Project Status:

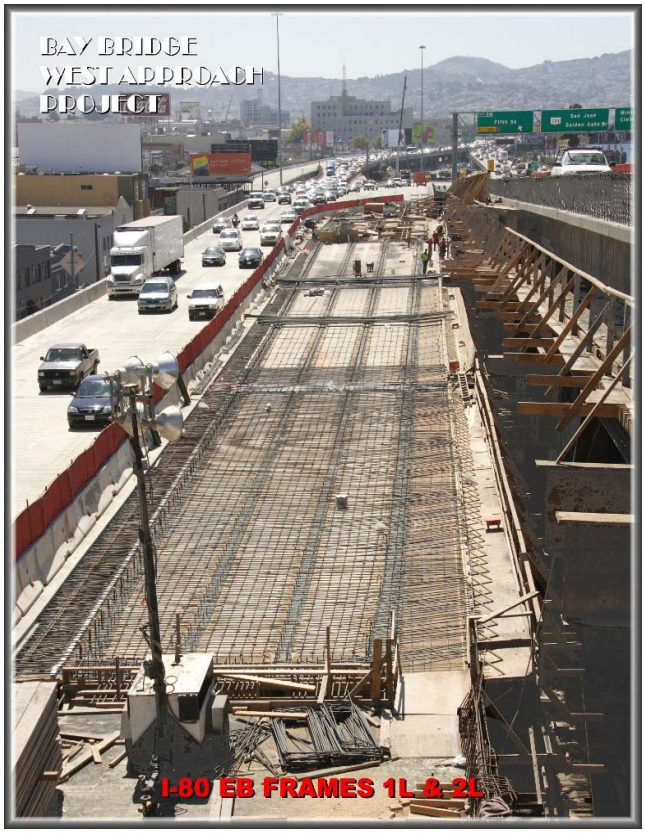
- The project was 95% completed based on the expended value of the contract as of the end of August 2008.
- Both westbound and eastbound I-80 traffic lanes are nearly in the final lane configuration following opening of the reconstructed eastbound west approach in April 2008 **(see photos #25.1 and #25.2).**
- Ongoing work includes the final widening of mainline structures, completion of seismic retrofit work on the lower deck near the bridge anchorage**,** demolition of the temporary upper deck widening near the Fremont Street off-ramp, and completion of a new Sterling Street eastbound on-ramp and Harrison Street westbound off-ramp to and from the bridge.

Project Issues: None.

Contract Issues: None.

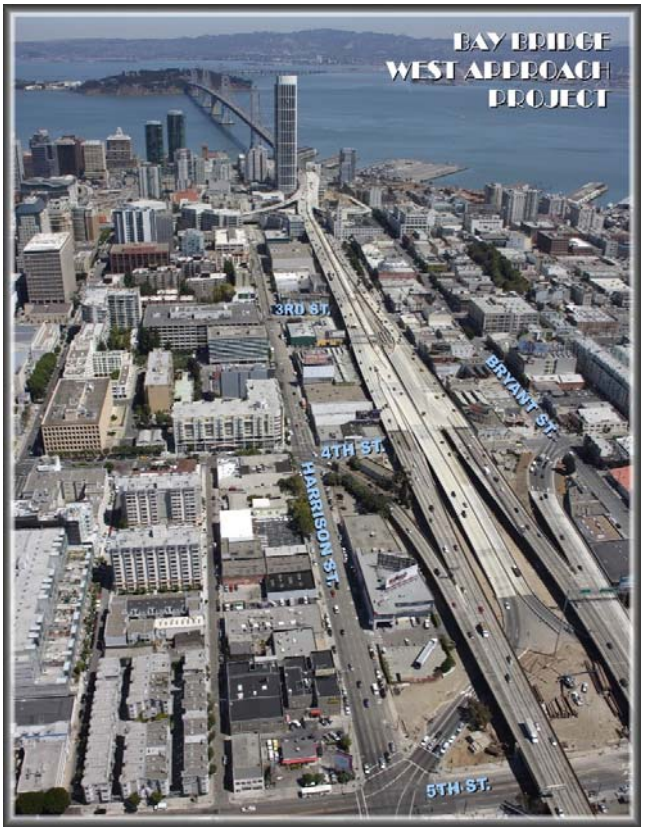
Recent TBPOC Actions: None

Contract Photographs

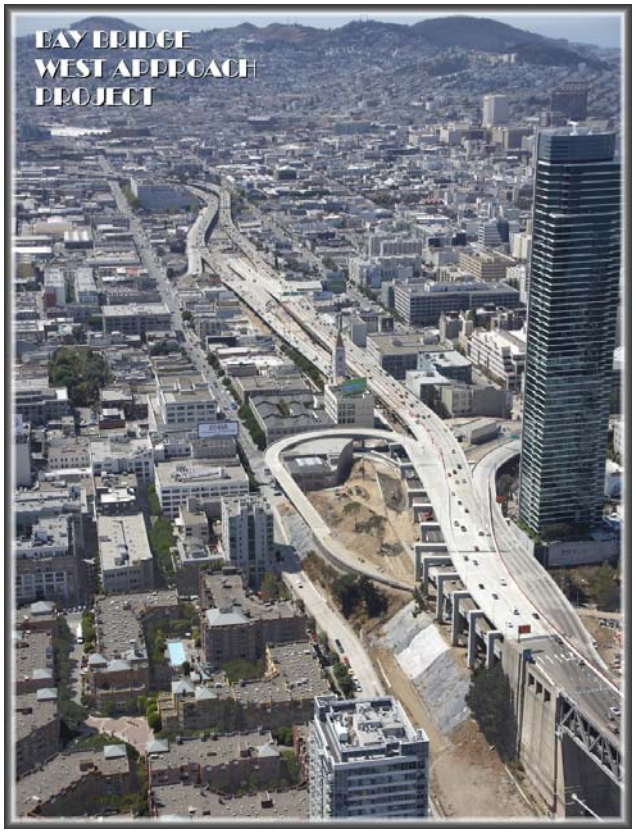


(25.1) *Aerial Photographs of the West Approach Project*

(25.2) *Aerial Photographs of the West Approach Project*



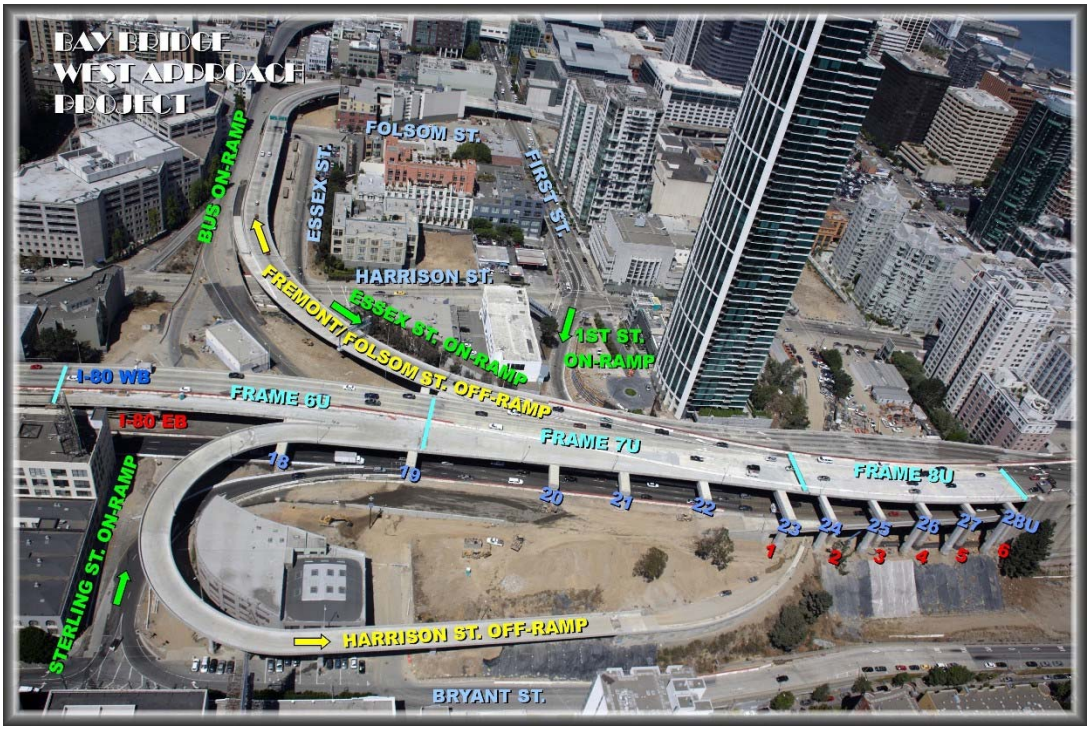
(25.3) *Aerial Photographs of the West Approach Project*



(25.4) *Aerial Photographs of the West Approach Project*

Contract Photographs

(26.1) *Aerial Photographs of the West Approach Project*



(26.2) *Aerial Photographs of the West Approach Project*

Toll Bridge Seismic Retrofit Program

Other Completed Seismic Retrofit Projects

Summary Description: Caltrans has already completed the seismic retrofits of the West Spans of the SFOBB, the existing 1958 Carquinez Bridge, the existing Benicia-Martinez Bridge, the San Mateo-Hayward Bridge, the Richmond-San Rafael Bridge, and two former toll bridges in Southern California.

Other Completed Seismic Retrofit Projects Cost Summary ($ Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (072008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	302.0	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.2	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit Project	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit Project	103.5	-	103.5	102.6	103.5	-
Richmond San Rafael Bridge (RSRB) Seismic Retrofit Project	914.0	(97.5)	816.5	794.8	816.5	-
TOTAL	1839.4	-97.5	1741.9	1713.2	1741.9	-

Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined.

Other Completed Seismic Retrofit Projects Schedule Summary

Project	Actual Project Completion Date
Vincent Thomas Bridge Retrofit	May 2000
San Mateo-Hayward Bridge Retrofit	June 2000
Carquinez Bridge Retrofit	January 2003
San Diego-Coronado Bridge Retrofit	June 2003
Benicia-Martinez Bridge Retrofit	August 2003
SFOBB West Span Seismic Retrofit	June 2004
RSRB Seismic Retrofit	August 2005

Summary Status: The budget and cost forecasts amounts shown above include allowances for minor project closeout costs.

Contract Issues: None.

Recent TBPOC Actions: None.

Toll Bridge Seismic Retrofit Program

Other Toll Bridges

The Dumbarton Bridge

State Route 84 crosses the southern region of San Francisco Bay between the cities of Newark to the east and East Palo Alto to the west **(see photo #28.1).** The Route consists of three lanes in each direction and an eight-foot bicycle/pedestrian lane. The annual average daily traffic (AADT) of the route is near 60,000. The bridge is over 2 km in length and is positioned in an approximately normal geometry between two seismic faults. The United States Geometrical Survey (USGS) reports that the San Andreas Fault, some 15 km to the west of the bridge, and the Hayward Fault, some 13 km to the east of the bridge, pose most of the significant seismic threat to the San Francisco Bay Area.

The Antioch Bridge

State Route 160 crosses the San Joaquin River between the city of Antioch and Sherman Island (leading to Rio Vista) via the Antioch Bridge **(see photo # 28.2).** The Bridge carries a single lane of traffic in each direction. The AADT for the route is slightly over 10,000 vehicles per day. This bridge is threatened by the Bird's Landing Seismic Zone, Cost Range/Sierra Nevada Boundary Zone and the San Andreas Fault.

Current Progress

Work in the area of bridge structural engineering continues for both bridges. A strategy meeting took place on August 22, 2008 for both projects and consensus by the project teams recommended retrofit strategies for both bridges. Both The Dumbarton and Antioch Bridge seismic retrofit strategies include installation of isolation bearings and strengthening of the piers above the water line. The Dumbarton Bridge retrofit strategy also includes superstructure and deck modifications and additional strengthen of the over-land approach slab structures. The Antioch Bridge retrofit strategy also includes relatively minor modifications to the approach structure on Sherman Island. It was concluded at this meeting that foundation retrofit is not required for either bridge. The design teams presented their proposed strategy schemes and the results of their analysis to the Toll Bridge Seismic Safety Peer Review Panel on September 24, 2008. The design teams are currently preparing draft estimates based on the above retrofit strategies, which are expected to be complete by the first week of October 2008. The design teams met with the regulatory agencies to discuss the scope of work and the schedules, as well as the environmental issues affecting both bridges.

Risk management meetings were held on September 23, 2008 to discuss the risks associated with the retrofit strategy for each bridge. The environmental process is continuing for both projects and once the design/retrofit strategy is completed, all the permit applications will be submitted to the appropriate agencies for their approval (see schedule in Appendix G).

(28.1) *The Dumbarton Bridge*

(28.2) *The Antioch Bridge*

PROJECT / CONTRACT REPORTS

Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

- New Benicia-Martinez Bridge Contract
- Other Contracts and Related Project Activities

Interstate 880 / State Route 92 Interchange Reconstruction

Other Completed Regional Measure 1 Projects

- San Mateo–Hayward Bridge Widening Project
- Richmond Parkway Project
- Bayfront Expressway Widening Project
- Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project
- Richmond-San Rafael Bridge Deck Overlay Project
- New Carquinez Bridge Project

Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

Project Description: The new Benicia-Martinez Bridge project has constructed a new parallel bridge just east of the existing bridge. The project includes reconstructed interchanges to the north and south of the bridges and a new toll plaza and administration building in Martinez.

New Benicia-Martinez Bridge Project Cost Summary ($ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	157.1	35.2	192.3	182.6	192.3	-
Right-of-Way and Others	20.4	(0.1)	20.3	16.9	20.3	-
Capital Outlay						-
New Bridge	672.0	94.6	766.6	763.8	766.6	-
I-680/I-780 Interchange Replacement	76.3	26.9	103.2	98.5	103.2	-
I-680/Marina Vista Interchange Reconstruction	51.5	4.9	56.4	56.1	56.4	-
New Toll Plaza	24.3	2.0	26.3	23.3	26.3	-
Existing Bridge & Interchange Modifications	17.2	42.3	59.5	10.1	59.5	-
Other	20.3	2.8	23.1	15.4	23.1	-
Project Reserve	20.8	4.0	24.8	-	24.8	-
TOTAL	1,059.9	212.6	1,272.5	1,166.7	1,272.5	-

Note: Details may not sum to totals due to rounding effects.
** The budget and estimate at completion includes approximately $33 million in non-toll bridge funds (Proposition 192 and SHOPP).*

New Benicia-Martinez Bridge Project Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
New Bridge Open to Traffic	December 2007	-	August 2007	August 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

Project Status:

- The new northbound bridge was opened to traffic in August 2007.
- The existing bridge (southbound) and interchange modification contract was 45% complete based on the expended value of the contract as of the end of August 2008.
- Stage 1 of the contract has been completed with the removal of the old toll plaza, and repair of the bridge deck and roadway undulations on the east side of the existing bridge and south approach. Southbound traffic was realigned to the east side of the existing bridge on August 15, 2008 for the start of Stage 2 work **(see photos # 31.1 through #31.4).**
- Stage 2 work includes the deck and roadway undulation repairs along the west side of the existing bridge and south approach, raising of the portions of the Moccoco road overcrossing to match the new lane alignments and construction of a new bicycle/pedestrian pathway across the existing bridge.
- Work in progress includes removal of the median barrier and preparation of the bridge deck for later deck repairs.

Project Issues: None.

Recent TBPOC Actions: None

Contract Photographs

(31.1) *View of SB 680 Looking North from the North End of the Bridge*

(31.2) *Looking North at the New SB 680*

(31.3) *Looking South at the New SB 680*

(31.4) *View of the SB 680 Looking South from the North End of the Bridge*

Regional Measure 1 Program

Interstate 880/State Route 92 Interchange Reconstruction Project

Project Description: Modify the existing cloverleaf interchange to increase capacity and improve safety and traffic operations.

Interstate 880/State Route 92 Interchange Cost Summary ($ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
I-880/SR-92 Interchange Improvement						
Capital Outlay Support	28.8	26.2	55.0	40.8	55.0	-
Capital Outlay Construction	94.8	60.2	155.0	29.6	155.0	-
Capital Outlay Right-of-Way	9.9	5.1	16.9	11.0	16.9	-
Project Reserve	0.3	19.7	18.1	-	18.1	-
TOTAL	133.8	111.2	245.0	81.4	245.0	-

Note: Details may not sum to totals due to rounding effects. $9.6 million in ACTA funds included under Capital Outlay Construction. $3.0 million included in Capital Outlay Construction and $1.0 million in Capital Outlay Support for separate landscape contract.

Interstate 880/State Route 92 Interchange Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (07/2008)	Contract Complete Schedule Forecast (07/2008)	Schedule Variance (Months)
I-880/SR-92 Interchange Reconstruction	December 2010	-	June 2011	June 2011	6

Project Status:

- The project was 30% completed based on the expended value of the contract as of the end of August 2008.
- On the new eastbound State Route 92 to northbound Interstate 880 connector, all foundations have been completed. The contractor has been erecting temporary support falsework over I-880 and has started the installation of reinforcement steel for the new structure **(see photos #33.1 and #33.2).**
- Other ongoing work includes the construction of various retaining and sound walls throughout the project limits, construction of a new pedestrian overcrossing of I-880 at Eldridge Avenue, and widening of SR-92 at Mount Eden. The Hesperian Boulevard on-ramp to eastbound SR-92 remains closed while it is being realigned.

Project Issues: None.

Contract Issues: None.

Recent TBPOC Actions: None

Contract Photographs

(33.1) *Interstate 880/State Route 92 Interchange Reconstruction Project*

(33.2) *Interstate 880/State Route 92 Interchange Reconstruction Project*

Project Photographs

(34.1) *Interstate 880/State Route 92 Interchange -* ***September 2008***

(34.2) *Interstate 880/State Route 92 Interchange –* ***At Completion***

Regional Measure 1 Program

Other Completed Regional Measure 1 (RM1) Projects

Summary Description: Other completed Regional Measure 1 projects are the following: (a) Widen the San Mateo-Hayward Bridge along its low-trestle section and its eastern approach; (b) Widen the Bayfront Expressway (SR 84) from the Dumbarton Bridge to the U.S. 101/Marsh Road interchange; (c) Construct an eastern approach (Richmond Parkway) between the Richmond-San Rafael Bridge and Interstate 80 near Pinole; (d) Modify the U.S. 101/University Avenue interchange; (e) Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation Project; and (f) Richmond-San Rafael Bridge Deck Overlay Project; (g) Construct a new suspension bridge with four westbound lanes and a bicycle/pedestrian lane west of the existing Carquinez Bridge and demolition of the existing 1927 bridge.

Other Completed RM1 Projects Cost Summary ($ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	Variance
a	b	c	d = b + c	e	f	g = f - d
San Mateo-Hayward Bridge Widening Project	217.8	-	217.8	208.7	211.9	(5.9)
Bayfront Expressway Widening Project	36.1	-	36.1	33.4	36.0	(0.1)
Richmond Parkway Project	5.9	-	5.9	4.3	5.9	-
U.S. 101/University Interchange	3.8	-	3.8	3.7	3.8	-
RSRB Trestle, Fender, and Joint Rehabilitation	103.1	-	103.1	96.3	97.1	(5.0)
RSRB Deck Overlay	25.0	-	25.0	19.6	25.0	-
New Carquinez Bridge Project	528.2	-	528.2	509.5	519.2	(9.0)
TOTAL	1310.6		1310.6	1241.5	1278.6	(31.0)

Schedule Summary

Project	Actual Project Completion Date
Richmond Parkway Project	May 2001
San Mateo-Hayward Bridge Widening Project	February 2003
Bayfront Expressway Widening Project	January 2004
U.S. 101/University Interchange	April 2004
Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation	August 2005
RSR Deck Overlay	December 2006
New Carquinez Bridge Project	December 2007

Project Status: All significant construction has been completed on the above listed projects. The budget and cost forecasts amounts shown above include allowances for minor project closeout costs.

Project Issues: None.

APPENDICES

** Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.*

Appendix A: Toll Bridge Seismic Retrofit Program ($ Millions)

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project							
East Span - Skyway	**01202X**						
Capital Outlay Support		197.0	(16.0)	181.0	180.4	181.0	-
Capital Outlay Construction		1,293.0	(38.9)	1,254.1	1,236.4	1,254.1	-
Total		1,490.0	(54.9)	1,435.1	1,416.8	1,435.1	-
East Span - SAS E2/T1 Foundations	**0120EX**						-
Capital Outlay Support		52.5	(21.5)	31.0	28.2	31.0	-
Capital Outlay Construction		313.5	(32.6)	280.9	273.0	280.9	-
Total		366.0	(54.1)	311.9	301.2	311.9	-
East Span - SAS Superstructure	**0120FX**						
Capital Outlay Support		214.6	-	214.6	97.2	214.6	-
Capital Outlay Construction		1,753.7	-	1,753.7	497.4	1,767.4	13.7
Total		1,968.3	-	1,968.3	594.6	1,982.0	13.7
SAS W2 Foundations	**0120CX**						
Capital Outlay Support		10.0	-	10.0	9.2	10.0	-
Capital Outlay Construction		26.4	-	26.4	25.8	26.4	-
Total		36.4	-	36.4	35.0	36.4	-
YBI South/South Detour	**0120RX**						
Capital Outlay Support		29.4	36.6	66.0	46.5	66.0	-
Capital Outlay Construction		132.0	310.2	442.2	205.2	461.2	19.0
Total		161.4	346.8	508.2	251.7	527.2	19.0
YBI Transition Structures (see notes below)	**0120PX**						
Capital Outlay Support		78.7	-	78.7	20.7	78.7	-
Capital Outlay Construction		299.3	(23.2)	276.1	-	276.1	-
Total		378.0	(23.2)	354.8	20.7	354.8	-
*** YBI- Transition Structures Contract No. 1**							
Capital Outlay Support					3.0	45.0	
Capital Outlay Construction					-	214.3	
Total					3.0	259.3	
*** YBI- Transition Structures Contract No. 2**							
Capital Outlay Support					1.3	16.0	
Capital Outlay Construction					-	58.5	
Total					1.3	74.5	
*** YBI- Transition Structures Contract No. 3 Landscape**							
Capital Outlay Support					-	1.0	
Capital Outlay Construction					-	3.3	
Total					-	4.3	
Oakland Touchdown (see notes below)	**01204X**						
Capital Outlay Support		74.4	-	74.4	39.9	92.1	17.7
Capital Outlay Construction		283.8	-	283.8	109.7	302.5	18.7
Total		358.2	-	358.2	149.6	394.6	36.4
*** OTD Submarine Cable**	**0120K4**						
Capital Outlay Support					0.9	3.0	
Capital Outlay Construction					7.9	9.6	
Total					8.8	12.6	
*** OTD No. 1 (Westbound)**	**0120L4**						
Capital Outlay Support					18.1	49.9	
Capital Outlay Construction					101.9	226.5	
Total					120.0	276.4	
*** OTD No. 2 (Eastbound)**	**0120M4**						
Capital Outlay Support					0.7	15.8	
Capital Outlay Construction					-	62.0	
Total					0.7	77.8	
*** OTD Electrical Systems**	**0120N4**						
Capital Outlay Support					0.1	1.4	
Capital Outlay Construction					-	4.4	
Total					0.1	5.8	

Notes: YBI Transition Structures and Oakland Touchdown Cost-to-Date and Cost Forecast includes prior-to-split Capital Outlay Support Costs.

Note: Details may not sum to totals due to rounding effects.

Appendix A: Toll Bridge Seismic Retrofit Program ($ Millions)

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail (Cont'd.)

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
Existing Bridge Demolition	**01209X**						
Capital Outlay Support		79.7	-	79.7	0.3	79.7	-
Capital Outlay Construction		239.2	-	239.2	-	222.0	(17.2)
Total		318.9	-	318.9	0.3	301.7	(17.2)
YBI/SAS Archeology	**01207X**						
Capital Outlay Support		1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction		1.1	-	1.1	1.1	1.1	-
Total		2.2	-	2.2	2.2	2.2	-
YBI - USCG Road Relocation	**0120QX**						
Capital Outlay Support		3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction		3.0	-	3.0	2.8	3.0	-
Total		6.0	-	6.0	5.5	6.0	-
YBI - Substation and Viaduct	**0120GX**						
Capital Outlay Support		6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction		11.6	-	11.6	11.3	11.6	-
Total		18.1	-	18.1	17.7	18.1	-
Oakland Geofill	**01205X**						-
Capital Outlay Support		2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction		8.2	-	8.2	8.2	8.2	-
Total		10.7	-	10.7	10.7	10.7	-
Pile Installation Demonstration Project	**01208X**						
Capital Outlay Support		1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction		9.2	-	9.2	9.2	9.2	-
Total		11.0	-	11.0	11.0	11.0	-
Stormwater Treatment Measures	**0120JX**						
Capital Outlay Support		6.0	2.0	8.0	7.9	8.0	-
Capital Outlay Construction		15.0	3.3	18.3	16.5	18.3	-
Total		21.0	5.3	26.3	24.4	26.3	-
Right-of-Way and Environmental Mitigation	**0120X9**						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay & Right-of-Way		72.4	-	72.4	39.3	72.4	-
Total		72.4	-	72.4	39.3	72.4	-
	04343X & 04300X						
Sunk Cost - Existing East Span Retrofit							
Capital Outlay Support		39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction		30.8	-	30.8	30.8	30.8	-
Total		70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support							
Environmental Phase		97.7	-	97.7	97.7	97.7	-
Pre-Split Project Expenditures		44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs		20.0	(1.0)	19.0	3.2	19.0	-
Total		162.6	(1.0)	161.6	145.8	161.6	-
Subtotal Capital Outlay Support		959.3	-	959.3	630.1	977.1	17.7
Subtotal Capital Outlay Construction		4,492.2	218.8	4,711.0	2,466.7	4,745.2	34.2
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total SFOBB East Span Replacement Project		**5,486.6**	**215.5**	**5,702.1**	**3,097.5**	**5,730.0**	**27.9**

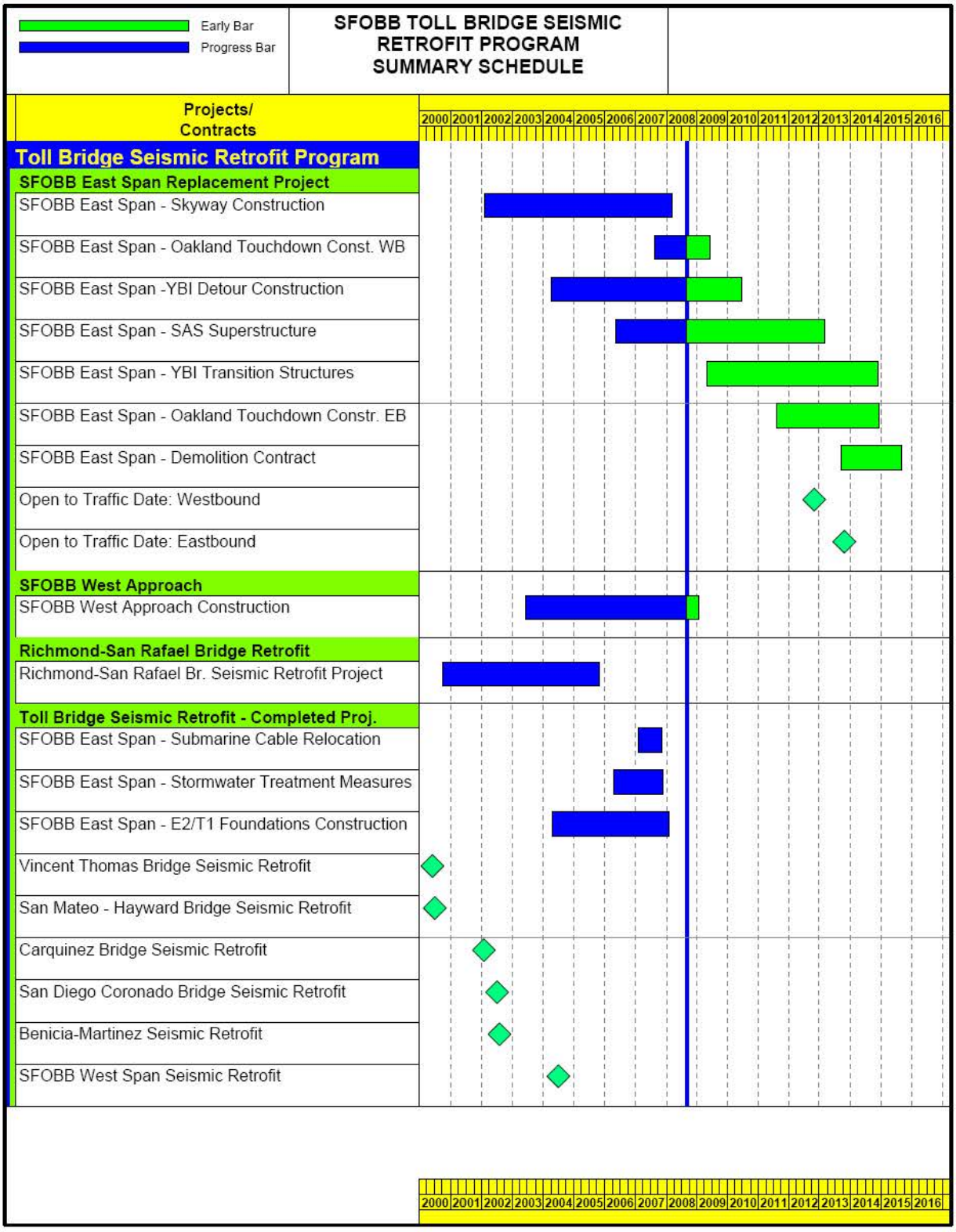
Note: Details may not sum to totals due to rounding effects.

Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail ($ Millions)

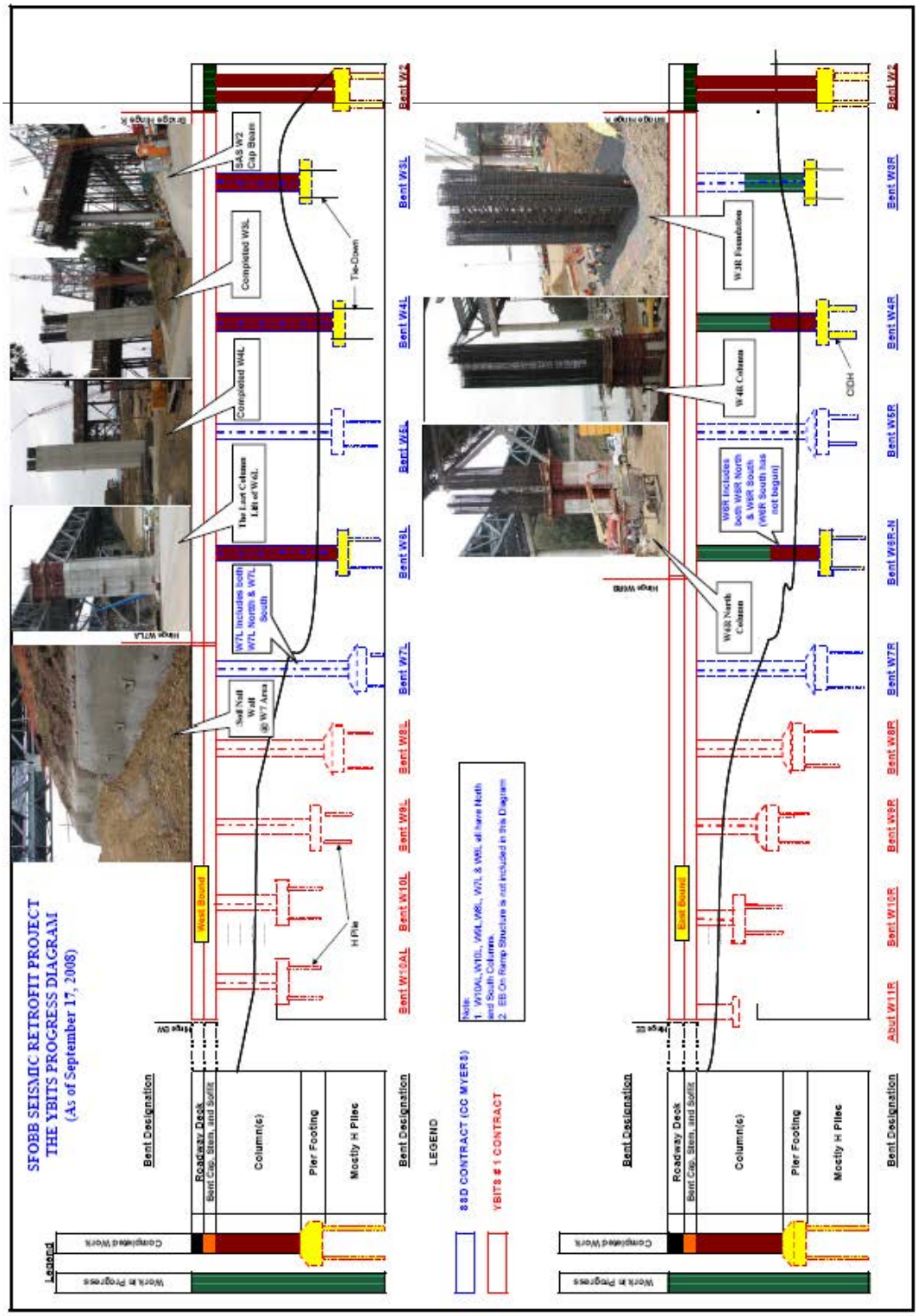
Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	-	959.3	630.1	977.1	17.8
Capital Outlay Construction	4,492.2	218.8	4,711.0	2,466.7	4,745.2	34.2
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total	5,486.6	215.5	5,702.1	3,097.5	5,730.0	27.9
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	-	120.0	108.3	120.0	-
Capital Outlay Construction	309.0	24.7	333.7	286.5	350.7	17.0
Total	429.0	24.7	453.7	394.8	470.7	17.0
SFOBB West Span Retrofit						-
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	227.2	232.9	-
Total	307.9	-	307.9	302.0	307.9	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.7	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	668.1	689.5	-
Total	914.0	(97.5)	816.5	794.8	816.5	-
Benicia-Martinez Bridge Retrofit						-
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.4	85.5	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Bridge Retrofit						-
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
Total	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
Total	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
Total	103.5	-	103.5	102.6	103.5	-
Subtotal Capital Outlay Support	1,433.1	(7.0)	1,426.1	1,084.5	1,443.9	17.8
Subtotal Capital Outlay	6,286.8	153.0	6,439.8	4,120.3	6,491.0	51.2
Subtotal Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Miscellaneous Program Costs	30.0	-	30.0	24.7	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	142.7	7,927.7	5,230.2	7,972.6	44.9
Program Contingency	900.0	(142.7)	757.3	-	712.4	(44.9)
Total Toll Bridge Seismic Retrofit Program	**8,685.0**	**-**	**8,685.0**	**5,230.2**	**8,685.0**	**-**

Note: Details may not sum to totals due to rounding effects.

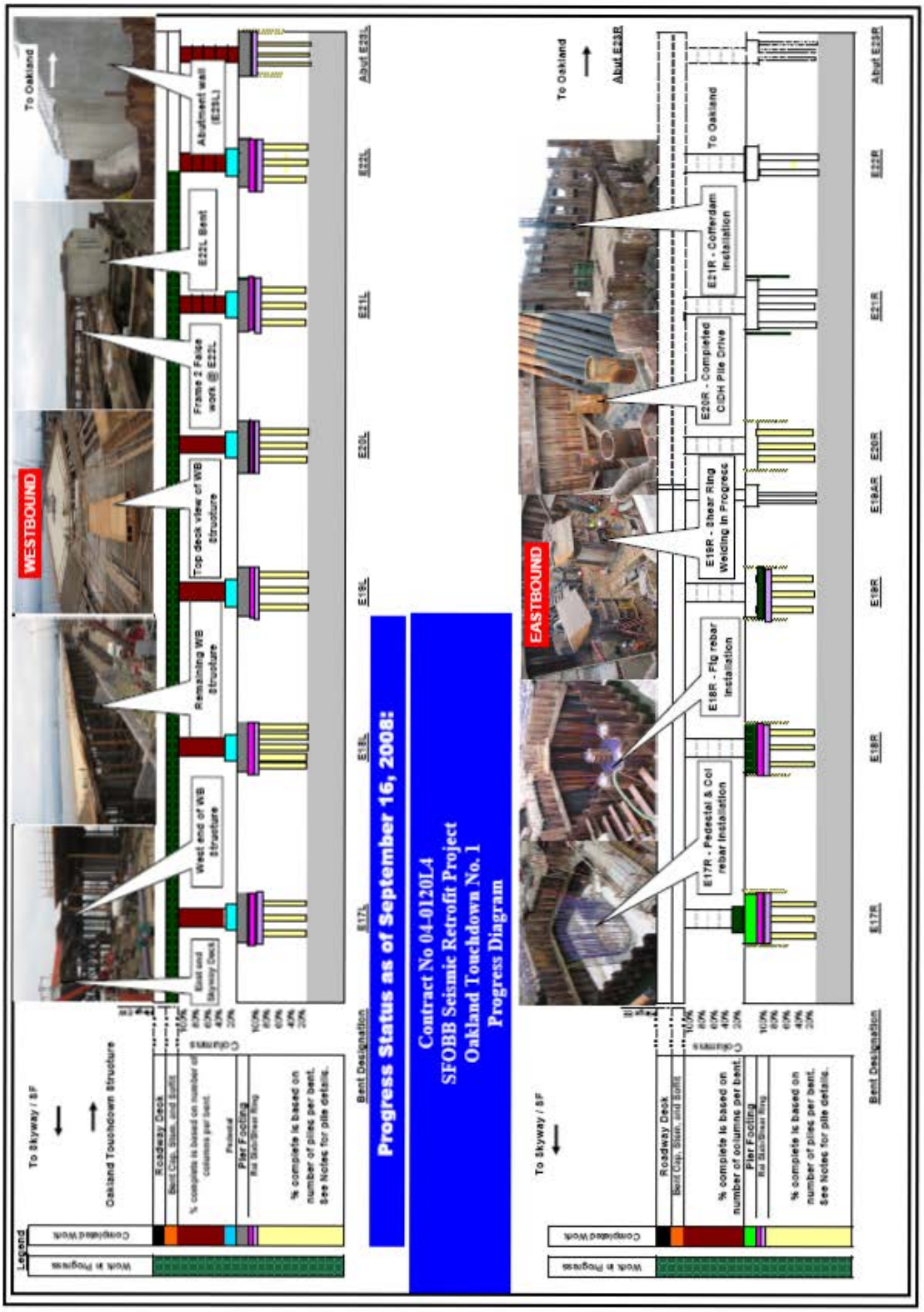
Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule



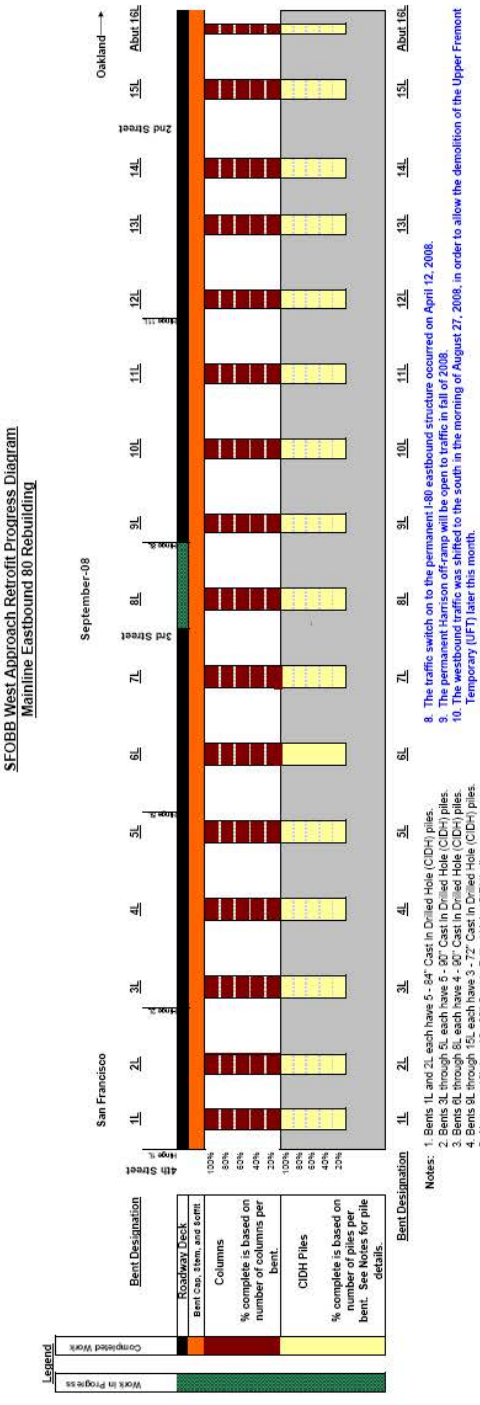
Appendix D: YBITS Progress Diagram



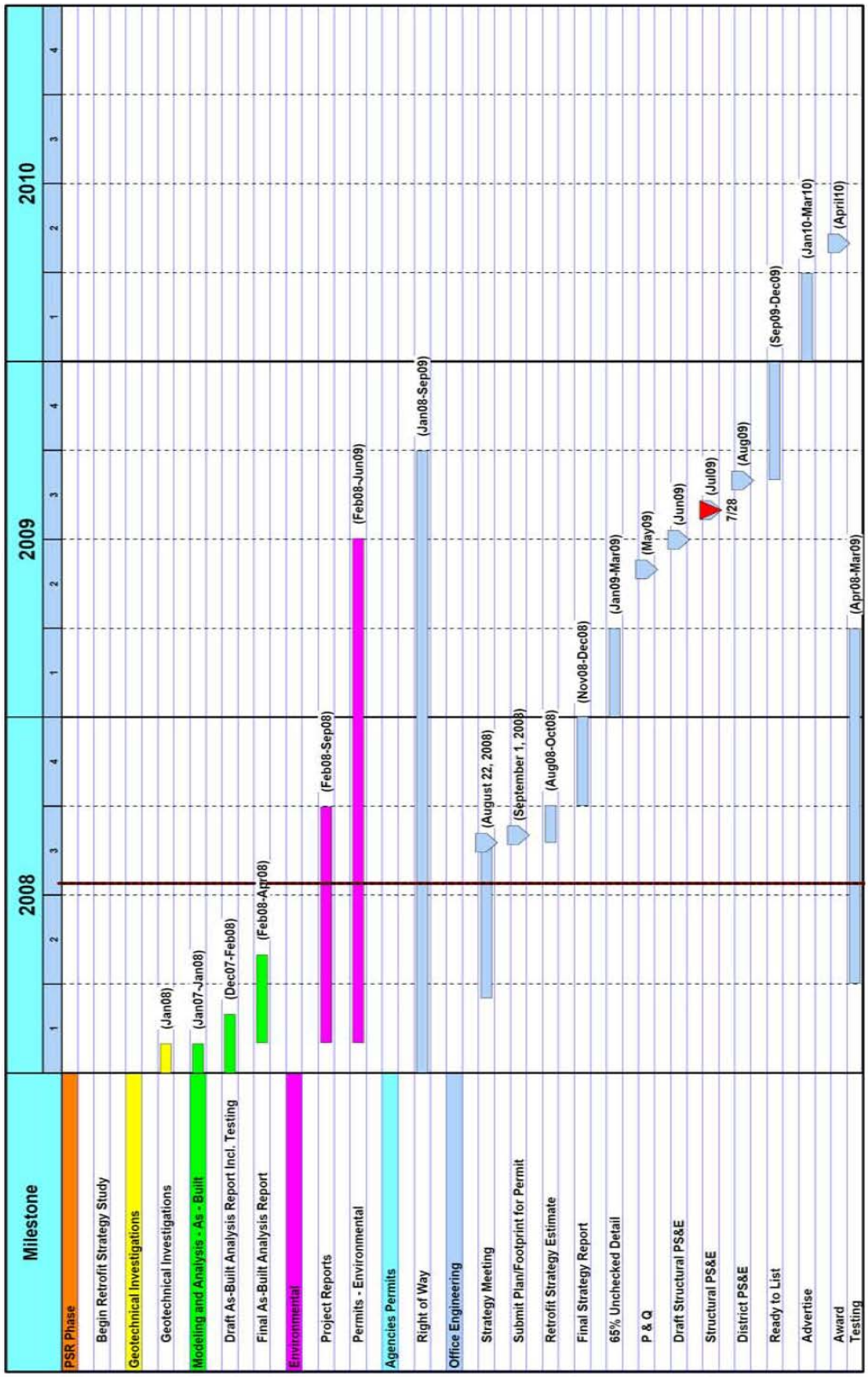
Appendix E: OTD #1 Progress Diagram



Appendix F: West Approach Progress Diagram



Appendix G: Antioch/Dumbarton Bridge Baseline Schedule



Appendix H: Regional Measure 1 Program Cost Detail ($ Millions)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project							
New Bridge	**00603_**						
Capital Outlay Support		84.9	6.7	91.6	91.5	91.6	-
Capital Outlay Construction				-			-
BATA Funding		661.9	94.6	756.5	753.7	756.5	-
Non-BATA Funding		10.1	-	10.1	10.1	10.1	-
Subtotal		672.0	94.6	766.6	763.8	766.6	-
Total		756.9	101.3	858.2	855.3	858.2	-
I-680/I-780 Interchange Reconstruction	**00606_**						
Capital Outlay Support							
BATA Funding		24.9	5.2	30.1	29.9	30.1	-
Non-BATA Funding		1.4	5.2	6.6	6.3	6.6	-
Subtotal		26.3	10.4	36.7	36.2	36.7	-
Capital Outlay Construction							
BATA Funding		54.7	26.9	81.6	76.8	81.6	-
Non-BATA Funding		21.6	-	21.6	21.7	21.6	-
Subtotal		76.3	26.9	103.2	98.5	103.2	-
Total		102.6	37.3	139.9	134.7	139.9	-
I-680/Marina Vista Interchange Reconstruction	**00605_**						
Capital Outlay Support		18.3	1.8	20.1	19.9	20.1	-
Capital Outlay Construction		51.5	4.9	56.4	56.1	56.4	-
Total		69.8	6.7	76.5	76.0	76.5	-
New Toll Plaza and Administration Building	**00604_**						
Capital Outlay Support		11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction		24.3	2.0	26.3	23.3	26.3	-
Total		36.2	5.8	42.0	39.0	42.0	-
Existing Bridge & Interchange Modifications	**0060A_**						
Capital Outlay Support		4.3	14.3	18.6	12.2	18.6	-
Capital Outlay Construction							
BATA Funding		17.2	32.8	50.0	10.1	50.0	-
Non-BATA Funding		-	9.5	9.5	-	9.5	-
Subtotal		17.2	42.3	59.5	10.1	59.5	-
Total		21.5	56.6	78.1	22.3	78.1	-
Other Contracts	**See note below**						
Capital Outlay Support		11.4	(1.8)	9.6	7.1	9.6	-
Capital Outlay Construction		20.3	2.8	23.1	15.4	23.1	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	16.9	20.3	-
Total		52.1	0.9	53.0	39.4	53.0	-
Subtotal BATA Capital Outlay Support		155.7	30.0	185.7	176.3	185.7	-
Subtotal BATA Capital Outlay Construction		829.9	164.0	993.9	935.4	993.9	-
Subtotal Capital Outlay Right-of-Way		20.4	(0.1)	20.3	16.9	20.3	-
Subtotal Non-BATA Capital Outlay Support		1.4	5.2	6.6	6.3	6.6	-
Subtotal Non-BATA Capital Outlay Construction		31.7	9.5	41.2	31.8	41.2	-
Project Reserves		20.8	4.0	24.8	-	24.8	-
Total New Benicia-Martinez Bridge Project		**1,059.9**	**212.6**	**1,272.5**	**1,166.7**	**1,272.5**	**-**

Notes: **Includes EA's 00601_,00603_,00605_,00606_, 00608_, 00609_, 0060A_, 0060C_, 0060E_, 0060F_, 0060G_, and 0060H_ and all Project Right-of-Way**

Note: Details may not sum to totals due to rounding effects.

Appendix H: Regional Measure 1 Program Cost Detail ($ Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
Carquinez Bridge Replacement Project							
New Bridge	**01301_**						
Capital Outlay Support		60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction		253.3	4.0	257.3	255.3	257.3	-
Total		313.8	3.7	317.5	315.5	317.5	-
Crockett Interchange Reconstruction	**01305_**						
Capital Outlay Support		32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction		73.9	-	73.9	71.9	73.9	-
Total		105.9	(0.1)	105.8	103.8	105.8	-
Existing 1927 Bridge Demolition	**01309_**						
Capital Outlay Support		16.1	-	16.1	15.3	15.5	(0.6)
Capital Outlay Construction		35.2	-	35.2	34.8	35.2	-
Total		51.3	-	51.3	50.1	50.7	(0.6)
Other Contracts	**See note below**						
Capital Outlay Support		15.8	0.2	16.0	16.1	16.0	-
Capital Outlay Construction		18.8	(0.8)	18.0	14.1	18.1	0.1
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
Total		45.1	(0.6)	44.5	40.1	44.6	0.1
Subtotal BATA Capital Outlay Support		124.4	(0.2)	124.2	123.5	123.6	(0.6)
Subtotal BATA Capital Outlay Construction		381.2	3.2	384.4	376.1	384.5	0.1
Subtotal Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
Project Reserves		12.1	(3.0)	9.1	-	0.6	(8.5)
Total Carquinez Bridge Replacement Project		**528.2**	**-**	**528.2**	**509.5**	**519.2**	**(9.0)**

Notes: **Other Contracts includes EA's 01301_,01302_, 01303_, 01304_,01305_, 01306_, 01307_, 01308_, 01309_,0130A_, 0130C_, 0130D_ , 0130F_, 0130G_, 0130H_, 0130J_, 00453_, 00493_, 04700_, 00607_, 2A270_, and 29920_ and all Project Right-of-Way**

Note: Details may not sum to totals due to rounding effects.

Appendix H: Regional Measure 1 Program Cost Detail ($ Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (07/2008)	Cost To Date (07/2008)	Cost Forecast (07/2008)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation	**See note [1] below**						
Capital Outlay Support							
BATA Funding		2.2	-	2.2	1.4	2.2	-
Non-BATA Funding		8.6	-	8.6	10.4	10.4	1.8
Subtotal		10.8	-	10.8	11.8	12.6	1.8
Capital Outlay Construction							
BATA Funding		40.2	-	40.2	33.4	33.4	(6.8)
Non-BATA Funding		51.1	-	51.1	51.1	51.1	-
Subtotal		91.3	-	91.3	84.5	84.5	(6.8)
Project Reserves		-	-	-	-	-	-
Total		102.1	-	102.1	96.3	97.1	(5.0)
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	**04152_**						
Capital Outlay Support							
BATA Funding		4.0	(0.4)	3.6	3.3	3.6	-
Non-BATA Funding		4.0	(4.0)	-	-	-	-
Subtotal		8.0	(4.4)	3.6	3.3	3.6	-
Capital Outlay Construction		16.9	3.6	20.5	16.3	16.2	(4.3)
Project Reserves		0.1	0.8	0.9	-	5.2	4.3
Total		25.0	-	25.0	19.6	25.0	-
Richmond Parkway Project (RM 1 Share Only)	**Non-Caltrans**						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		5.9	-	5.9	4.3	5.9	-
Total		5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening	**See note [2] below**						
Capital Outlay Support		34.6	(0.3)	34.3	34.1	34.3	-
Capital Outlay Construction		180.2	-	180.2	174.1	176.2	(4.0)
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves		1.5	0.3	1.8	-	0.8	(1.0)
Total		217.8	-	217.8	208.7	211.9	(5.9)
I-880/SR-92 Interchange Reconstruction	**EA's 23317_, 01601_, and 01602_**						
Capital Outlay Support		28.8	26.2	55.0	40.8	55.0	-
Capital Outlay Construction							
BATA Funding		85.2	60.2	145.4	29.6	145.4	-
Non-BATA Funding		9.6	-	9.6	-	9.6	-
Subtotal		94.8	60.2	155.0	29.6	155.0	-
Capital Outlay Right-of-Way		9.9	7.0	16.9	11.0	16.9	-
Project Reserves		0.3	17.8	18.1	-	18.1	-
Total		133.8	111.2	245.0	81.4	245.0	-
Bayfront Expressway Widening	**EA's 00487_, 01511_, and 01512_**						
Capital Outlay Support		8.6	(0.3)	8.3	8.3	8.2	(0.1)
Capital Outlay Construction		26.5	-	26.5	24.9	26.5	-
Capital Outlay Right-of-Way		0.2	-	0.2	0.2	0.2	-
Project Reserves		0.8	0.3	1.1	-	1.1	-
Total		36.1	-	36.1	33.4	36.0	(0.1)
US 101/University Avenue Interchange Modification	**Non-Caltrans**						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		3.8	-	3.8	3.7	3.8	-
Total		3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support		358.3	55.0	413.3	387.7	412.6	(0.7)
Subtotal BATA Capital Outlay Construction		1,569.8	231.0	1,800.8	1,597.8	1,785.8	(15.0)
Subtotal Capital Outlay Right-of-Way		42.5	6.9	49.4	38.5	48.5	(0.9)
Subtotal Non-BATA Capital Outlay Support		14.0	1.2	15.2	16.7	17.0	1.8
Subtotal Non-BATA Capital Outlay Construction		92.4	9.5	101.9	82.9	101.9	-
Project Reserves		35.6	20.2	55.8	-	50.6	(5.2)
Total RM1 Program		**2,112.6**	**323.8**	**2,436.4**	**2,123.6**	**2,416.4**	**(20.0)**

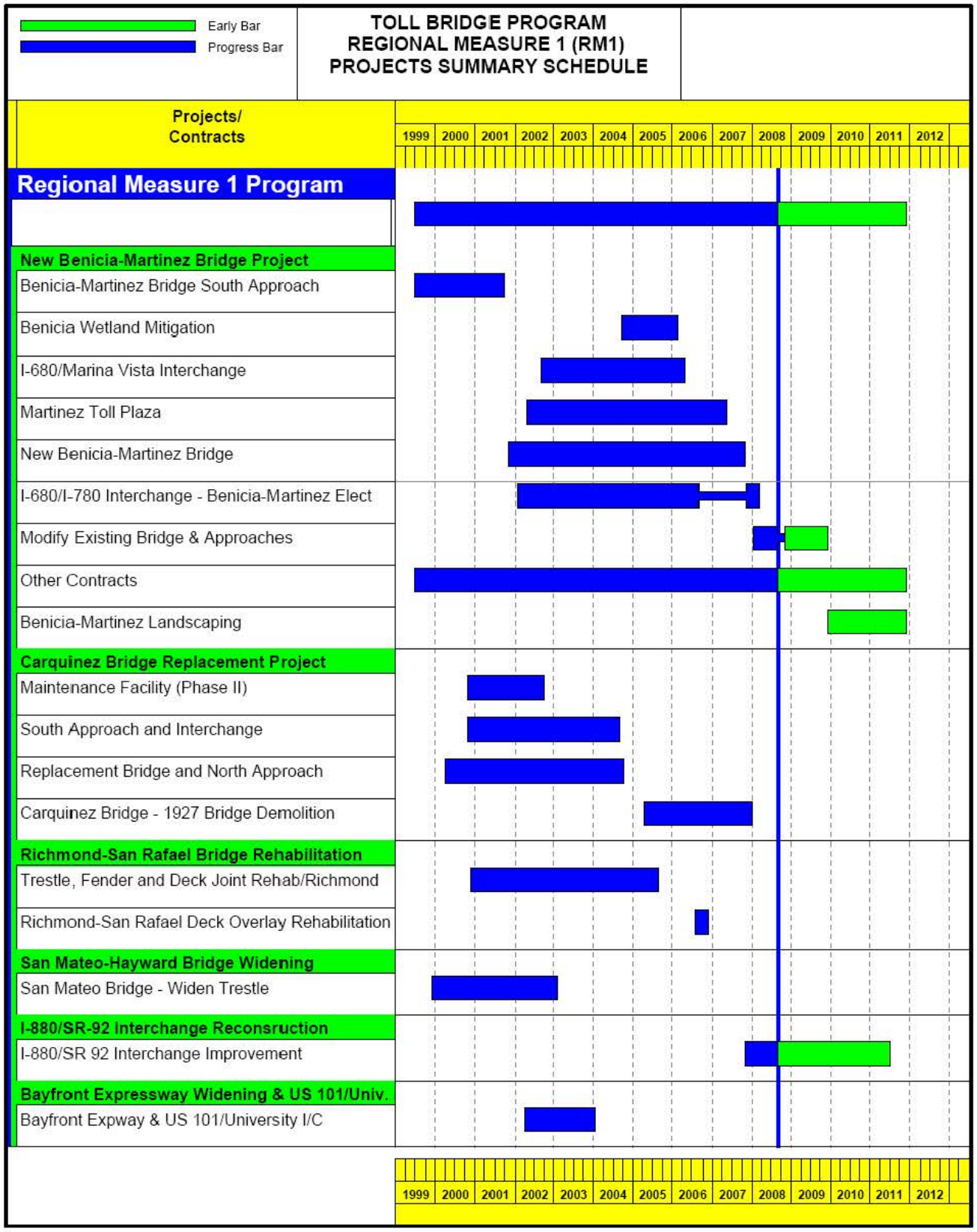
Notes:

[1] Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U_ and 04157_

[2] San Mateo-Hayward Bridge Widening Includes EA's 00305_, 04501_, 04502_, 04503_, 04504_, 04505_, 04506_, 04507_, 04508_, 04509_, 27740_, 27790_, 04860_

Note: Details may not sum to totals due to rounding effects.

Appendix I: Regional Measure 1 Program Summary Schedule



Appendix J: Glossary of Terms

AB144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

APPROVED CHANGES: For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

CURRENT APPROVED BUDGET: The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

The following information is provided in accordance with California Government code Section 755This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production, is $1,574,873.
73.

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TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 24, 2008

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4a1

Item- San Francisco-Oakland Bay Bridge Updates

Self-Anchored Suspension Superstructure (SAS) Update

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
A verbal update on the status of the Self-Anchored Suspension Superstructure (SAS) contract will be provided at the meeting.

Attachement:
N/A

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 24, 2008

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4a2

Item- San Francisco-Oakland Bay Bridge Updates

Team China

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The State of California, Department of Transportation (Caltrans) has and is asking for volunteers to staff a construction office in Shanghai, China. While Caltrans is currently providing for housing, travel medical insurance, per diem, some limited additional pay differentials, and travel expenses for the employee, Caltrans has found no ability to cover potential tax liabilities or the additional expense of maintaining a family either in China (i.e. education and travel expenses) or in the U.S. (i.e. house maintenance). These additional expenses, and typically much more, are covered for Federal employees working oversees and expatriate staff.

Staff continuity is very important to the responsible and expeditious delivery of the steel fabricated in China. Constant replacement of the employees overseeing the work due to financial limitations could impact schedule and cause delay.

The following additional benefits will help to insure continuity of staff in China:

- Tax differential, per diem becomes taxable if indefinite stay (over 1 year)
- Plane Tickets for family members, spouse and children under 18.
- Education Allowance - differential between what is paid at home and an equivalent school in China
- Visa and "visa travel" for family

- House maintenance allowance

The cost of the above additional benefits to support key members of Team China and provide an incentive to stay until fabrication is complete is small, estimated to be less than $100,000 per year.

BATA could fund expenses that Caltrans deems eligible for reimbursement. The challenge for Caltrans is that these expenses are outside Caltrans' ability to fund per discussion with the State Department of Personal Administration (DPA). DPA has tolerated some allowances for extended short-term per diem and housing for Caltrans staff, however, they have drawn a line at family expenses. The primary issue is that the State does not have any rules or guidance for working and living abroad, and any additional allowances could trigger additional labor issues.

BATA staff has inquired with general counsel and accounting to discuss other more direct funding options to Caltrans staff in China. Direct payments to Caltrans staff are not possible as that could be considered a gift of public funds. BATA options appear limited to BATA hiring the Caltrans staff directly or as consultants. To have Caltrans staff work directly for BATA, Caltrans staff would have to leave State service with no guarantee of being rehired after the SAS is completed and have to deal with significant retirement issues. BATA would have to review and amend BATA's labor contract to provide for living overseas.

To avoid the tax liability from staying in China over one year, Caltrans is rotating staffing out of China before the staff per diem becomes a taxable expense. As an example, Pete Siegenthaler has recently returned to Pier 7, while Mike Forner will be heading to China for several months to take his place.

Following is a draft statement of benefits for TEAM CHINA STATE EMPLOYEES ON TEMPORARY ASSIGNMENT IN SHANGHAI.

TEAM CHINA
STATE EMPLOYEES ON
TEMPORARY ASSIGNMENT
IN SHANGHAI

The State of California, Department of Transportation (Caltrans) has and is asking for volunteers to staff a construction office in Shanghai, China. The construction office is located at the Marriott Executive Apartments - Union Square in the Pudong New Area, Shanghai with offsite work at the ZPMC fabrication plant on Changxing Island. The personnel who are offered assignments to Shanghai are overseeing the fabrication, quality assurance (QA), of the deck and tower for the Self Anchored Suspension Superstructure (SAS) for the new East Span of the San Francisco-Oakland Bay Bridge (SFOBB). These volunteers will be out-of-country for periods ranging from a few days to 1 year and maybe for the entire fabrication schedule of 2.5 years.

The State of California can and is providing the following.

Short-term stays are the State's travel policy. The employee will pay for accommodations and food and will file a Travel Expense Claim (TEC) for reimbursement on returning to the United States.

Personnel assigned to long-term stays, over 1 month, are provided the following:

- An apartment at the Marriott Executive Apartments
- Transportation from the Apartments to the ZPMC facility as needed
- Short-Term Per Diem rate for entire stay – see memorandum dated October 18, 2007 from Tony Anziano, Toll Bridge Program Manager, to Mark Hirst, branch Chief, Conference, Travel Payments and Policy Branch and Mark Hirst approval memorandum-Employee must submit a TEC to be reimbursed.
- Travel Medical Insurance
- Flights to and from China for the employee
- Cell phones for in-country use
- *Pay Differential of 10% for Senior (classifications) and above*

The benefits above are the only benefits the State can offer. Benefits vary greatly for "expatriates" (employees working outside their homeland) from company to company, from employee to employee, and even with US Government Employees on Temporary and/or Overseas assignments. These variations are dependent on the need of the company, how important it is to have an employee on site, the employment status/level, family make up etc.

Benefits that are customarily offered include but are not limited to the following:

- ✓ Housing allowance or employer supplied housing *#
- ✓ Pay Differential, Cost of Living Adjustments, Per Diem *
- ✓ Car and Driver
- ✓ Transportation to and from home and assignment
  Both employee and family*# (ABF is Business Class)
- ✓ Medical Insurance *#
- ✓ Education Allowance *#
- ✓ Tax help, tax preparer, tax differential *
- ✓ Moving expenses #
- ✓ Separate Maintenance Allowance, when the family does not go on assignment *
- ✓ Allowance to care for house while on assignment
- ✓ Visa reimbursement

*Benefits offered by US Federal Government
Benefits offered by ABF

The State has provided the housing, per diem (in lieu of pay differential), transportation for the employee and medical insurance. What the State cannot provide is anything for a family and the per diem becomes taxable (including already paid) if the employee stays for 1 year or more.

The following additional benefits will help to insure continuity of staff in China:

- ➢ Tax differential, per diem becomes taxable if indefinite stay (over 1 year)
- ➢ Plane Tickets for family members, spouse and children under 18.
- ➢ Education Allowance - differential between what is paid at home and an equivalent school in China
- ➢ Visa and "visa travel" for family
- ➢ House maintenance allowance
- ➢ *Pay differential for Range D classification*

<u>Tax Differential</u>

Most, if not all, of the State employees will not be eligible to take advantage of the Foreign Earned Income Exclusion due to the temporary nature of their assignments and family situation. If the employee's stay becomes indefinite or is over 1 year, all per diem received, from date of assignment until the employee returns home, is taxable. The US Government offers Income Tax Reimbursement Allowance (ITRA) to employees to reimburse Federal, State and local income taxes incurred incident to an extended temporary assignment. Minimum benefit should be either a lump sum payment, including withholding for tax, based on a TurboTax or equivalent calculation of tax liabilities or a monthly payment based on the withholding specified in the travel policy

manual plus associated taxes on the payment. The second way allows for the employee to enjoy the equivalent of his monthly per diem immediately.

Tax withholding Long-term or indefinite stay per diem calculations

State of California withholdings on Per Diem per travel policy manual

Per diem Shanghai	$95.00	per day
Federal	25.00%	
State	6.00%	
Social Security	6.20%	on first $102,000 wages 2008 ($97,500 for 2007)
Medicare	1.46%	
SDI	0.80%	

Long-term stay in Shanghai

Per diem net	$57.51	per day
Delta	$37.49	per day
ITRA reimbursement	$37.49	
Fed Tax ITRA	$9.37	
State Tax ITRA	$2.25	
Total reimbursement	$49.11	per day

For the employee to net $95 per day a $49.11 per day supplement must be paid to employee

Cost Supplement based on working days (employee only gets per diem when in Shanghai working)

days	350	
Supplement	$49.11	
Total	$17,187.79	per year

Actual cost per month per employee will be calculated on the number of days per diem is claimed.

<u>Plane Tickets</u>

The minimum would be 1 round trip for family members who are not living in China for employees on 1 year assignment. Due to State's medical insurance that

restricts stays out-of-country to 180 days per trip, at least 2 round trips per family member living in China per year to satisfy medical insurance requirement. Reimbursement limited to coach non-refundable ticket price actually paid

Education Allowance

For employees whose family moved to Shanghai. This allowance should be based on the difference in TUITION between the school in the employee hometown and Shanghai with the cap being what the US Federal Government allows. Current Federal Government maximum allowance is $20,750/per student for Shanghai. Reimbursement is actual to the maximum amount.

Family Visas/"Visa Travel"

Reimburse employee for the cost of the Chinese Visas for the family. Most family members' visas have a 30, 60 or 90-day maximum stay allowed, this is due to the fact that WE are not "residents" of China but on Temporary Assignments. The family must exit the country for a day (visa travel), Hong Kong is considered out-of-country. The cost of transportation for the family should not be borne by the employee. Reimbursement could be based on actual costs, limited to economy class travel.

House Maintenance Allowance

A house left vacant while an employee is working in China needs to be cared for. Security and landscape maintenance are two problems. These problems can be solved. There are companies that can be hired to provide the required services. Reimbursement would be based on actual costs or a lump sum payment. Actual costs would assume that the employee did not engage the service while living in the house.

Another concern is the purchasing power of the dollars, since early 2007 the dollar has lost 10% to the RMB and is estimated to lose another 10% in 2008.

Continuity

Continuity is very important to delivering the fabrication on schedule. Replacing the employees overseeing the work every year could impact schedule and cause delay. The cost of the above additional benefits will support the current members of Team China and provide an incentive to stay until fabrication is complete is small.

The current benefits offered the employees are the maximum which the State can offer. State cannot pay family expenses and the ITRA.

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 24, 2008

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4b1

Item- San Francisco-Oakland Bay Bridge Updates

Yerba Buena Island Transition Structures (YBITS) No. 1

Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The matrix on the following page is provided as a tracking tool for the specification elements contained in the Yerba Buena Island Transition Structures No. 1 contract.

Attachment:
N/A

Subject	Method for Incorporation into Project		Notes		
	Bid Documents	Addendum / CCO / Other	Jul 2008	Sep 2008	Oct 2008
Roadway and Structure Plans	✓		Roadway and structures plans are complete and are ready to go excluding items listed below	Roadway and structures plans are complete and advertised.	
A + B Bidding	✓		Will be incorporated into the contract. The B time will include completing work up to 12 meters before hinge K with a maximum of 900 days at $50,000 per day.		
Bid opening date		✓		Bid opening date may require an extension. See detailed discussion in TBPOC agenda item, Opportunity Schedule Update.	Addendum may be presented to the TBPOC for approval in November for proposing an extension to the bid opening date in accordance with recommendations from the Corridor Schedule Team. Additional information will be developed in October to assess status of Corridor Schedule.
Areas for Contractors use (Areas PR and FP)	✓	✓	To minimize contractor congestion on the island, YBITS #1 may not start fieldwork until 1/1/2010. Potential risk that C.C. Myers may not clear area until 4/1/2010. Removed work restriction on the area around hinge K to allow for maximum amount of work to occur. Potential risk that ABF will need area to construct SAS.	To minimize contractor congestion on the island, the start of field work for YBITS #1 must be coordinated with completion of work by C.C. Myers. Current update to the Opportunity Schedule indicates that C.C. Myers may not clear the area until April 2010. Removed work restriction on the area around hinge K to allow for maximum amount of work to occur. Potential risk that ABF will need area to construct SAS.	
Demolition of existing bridge		✓	This work is currently in the C.C. Myers contract; however, it may be possible to place this work in YBITS 1 should that make the most sense from a scheduling and cost perspective.		
W5 foundation and column		✓	There is a provision to remove this work from the CCO with C.C. Myers. This work can be placed back in YBITS 1 should that make the most sense from a scheduling and cost perspective.		
Falsework ownership		✓	If the structures built during YBITS 1 cannot be stressed they may need to remain on falsework for an extended period of time, which would make Department ownership of the falsework desirable.		

Subject	Method for Incorporation into Project		Notes		
	Bid Documents	Addendum / CCO / Other	Jul 2008	Sep 2008	Oct 2008
Alternative construction method		✓	Add a hinge to the YBITS 1 contract Pros: 1. Avoids conflict in Area FP with ABF. 2. Allows for independent stressing of frames and decoupling this work from SAS contract. 3. May avoid need for more substantial falsework Cons: 1. Currently not designed in contract. 2. Complicated change that could significantly delay the project		

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** September 24, 2008

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4c

Item- San Francisco-Oakland Bay Bridge Updates

West Approach Book

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

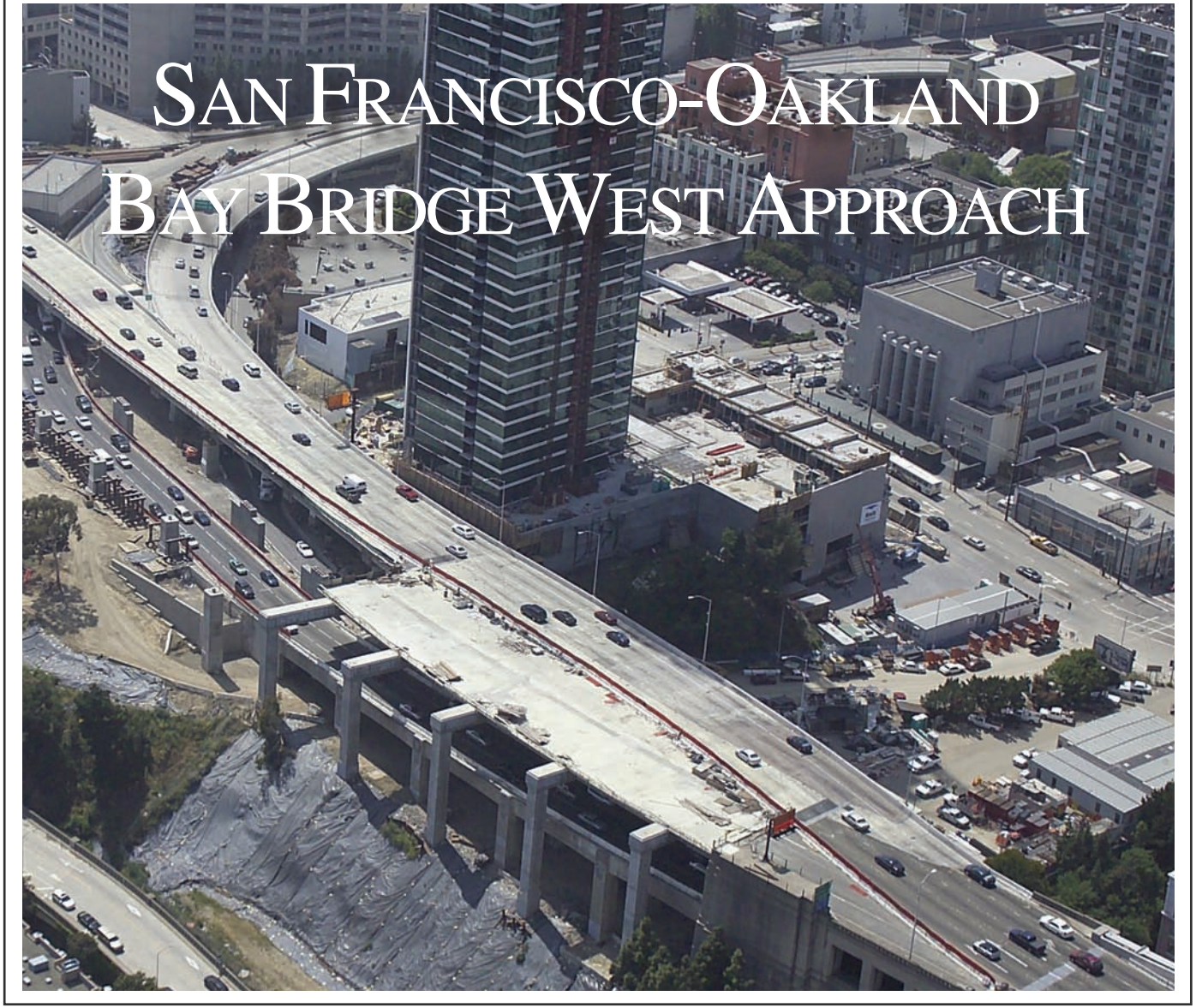
Discussion:
The West Approach project is drawing to a close, consistent with an early delivery date of January 2009, per the quarterly report (six months early). While details for a media strategy or end-of-project celebration have not yet been determined, capturing the history, successes and challenges, and staff commitment to the project are being memorialized in a West Approach Book.

We request TBPOC approval to proceed with the printing of books to be distributed around the West Approach closing ceremony. TBPOC comments are welcome and will be incorporated into the final document. Comments are due back by October 15 in order to proceed with final production.

Attachment:
West Approach Book provided separately.

DRAFT 2.2

San Francisco-Oakland Bay Bridge West Approach



The contents of this book reflect the views of the authors who are responsible for the facts and the accuracy of data presented herein. The contents do not necessarily reflect the official view or policies of the California Department of Transportation or the State of California. The State of California does not endorse products or manufacturers. Trade or manufacturer's names appear herein, only because they are considered essential to the object of this document. This report does not constitute a standard, specification, or regulation.

Published by
California Department of Transportation
Printed in the United States of America

San Francisco-Oakland Bay Bridge West Approach

FOREWORD

This book is dedicated to the people who designed and constructed the replacement of the West Approach of the San Francisco-Oakland Bay Bridge, and those who lived and worked in close proximity to the construction zone.

While the activities surrounding the Eastern Span of the bridge have perhaps gained more notoriety, the California Department of Transportation (Caltrans) has also completed, without much fanfare, highly complex and critical seismic retrofit ventures on the San Francisco side of the structure. This book highlights the innovation and dedication of the people committed to improving the seismic safety of the West Approach.

The San Francisco-Oakland Bay Bridge opened to vehicular traffic in November 1936, and was considered one of the engineering wonders of the world for its use of cutting edge technologies. Spanning more than eight miles between San Francisco and Oakland, it was the largest and most expensive bridge in the world, and represented a human triumph over the challenging conditions that characterize San Francisco Bay.

By 2007 the bridge carried over 280,000 vehicles each day, one of the most heavily traveled structures in the entire nation. Because of its location and high traffic volumes, the seismic retrofit of the West Approach was one of the most complex projects ever undertaken by Caltrans. A work of this complexity could not have been achieved without the effort of thousands of individuals including State engineers, local and State transportation officials, public information officers, community groups, the City and County of San Francisco, as well as the prime contractor, Tutor-Saliba Corporation, and their employees, subcontractors, and suppliers. Critical guidance was also provided by the Toll Bridge Program Oversight Committee, an entity established by the California Legislature to manage the State's Toll Bridge Seismic Retrofit Program.

The successful completion of this endeavor is also a tribute to the patience and understanding of the motorists, residents, and businesses of the South of Market Area where the structure is located.

***Tony Anziano**, Program Manager*
Toll Bridge Program
California Department of Transportation

Labor Day Weekend 2006 demolition of the upper deck of the I-80 freeway just west of the San Francisco anchorage. All debris was cleared and the freeway was opened to traffic by 5 a.m. for the Tuesday morning commute traffic.


Aerial view of the SFOBB West Approach
HILLS BROS COFFEE

CONTENTS

SAN FRANCISCO-OAKLAND BAY BRIDGE


WHAT'S HAPPENED
TO EVAPORATED MILK!
GOLDEN GRAIN
SCHMIDT
LITHOGRAP

HISTORY

Construction of the original eastbound structure over Third Street (ca. 1957).

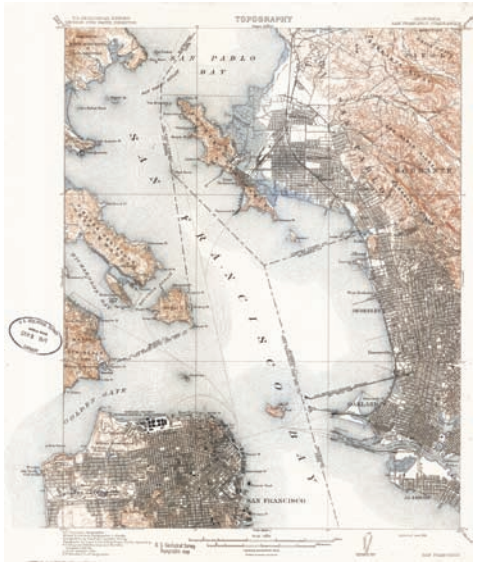
HISTORY

SAN FRANCISCO-OAKLAND BAY BRIDGE

Following the discovery of gold in 1849, San Francisco grew rapidly from a Spanish mission town into a burgeoning metropolis, and real estate prices skyrocketed as developers vied for the remaining vacant land. By the 1880s, the city began reclaiming the low-lying areas along the shoreline, dumping soil into the marshes and shallow water to create new building sites. The area now known as South of Market Area (SOMA) was fully reclaimed during this era, as the former China Basin Harbor gave way to homes, businesses and finally, in the 1930s, to the West Approach of the San Francisco-Oakland Bay Bridge (SFOBB).

The SFOBB opened on November 11, 1936, two months ahead of schedule. It offered six lanes on an upper deck for automobiles, while the lower deck was reserved for trucks and the electric trains of the interurban Key System. As the largest bridge in the world, the structure embodied an impressive amount of material: 200,000 tons of steel, 1 million cubic yards of con-

1899



1915

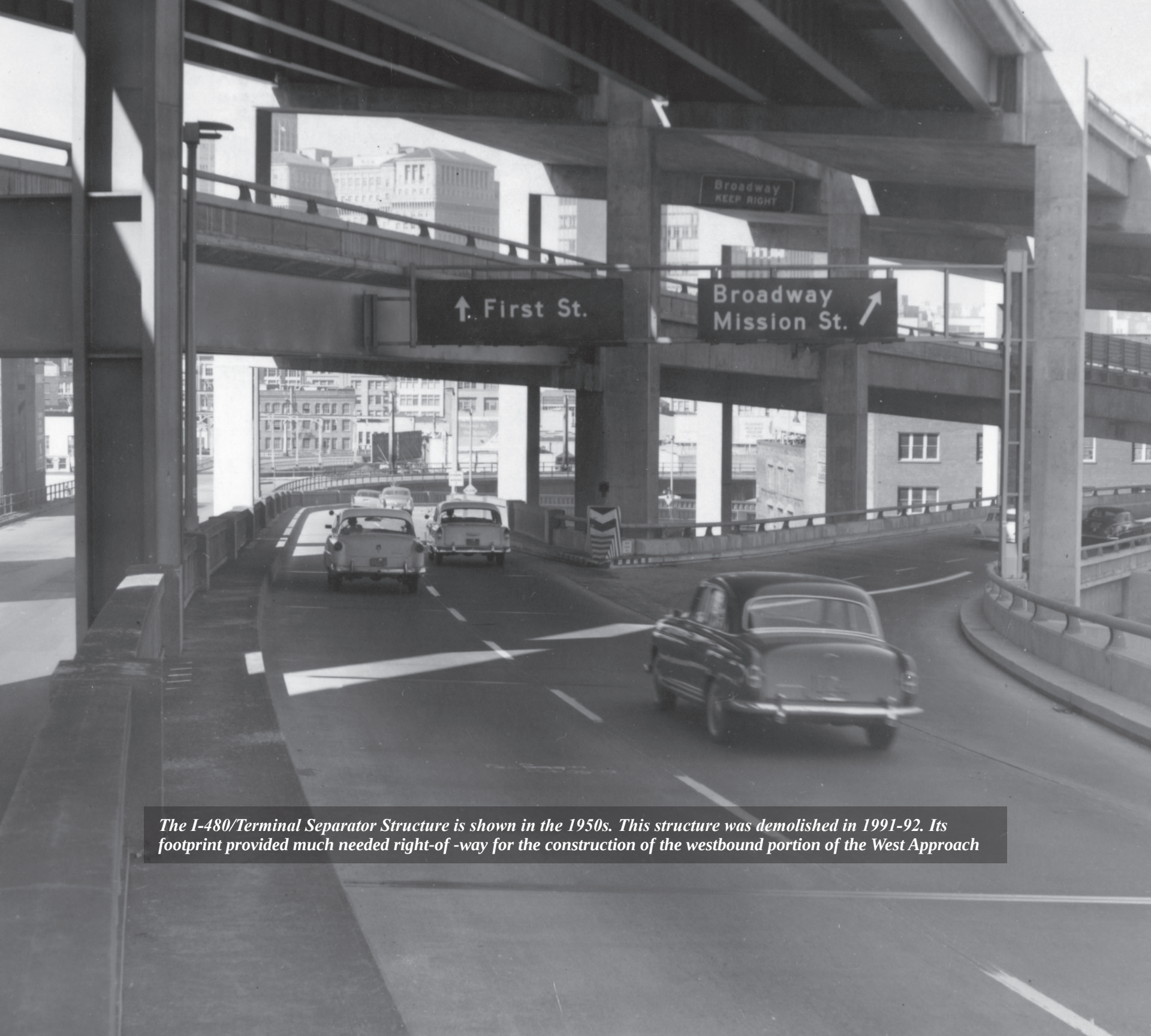
1942

Growth of the eastern portion of San Francisco from 1899 to 1942. Note the addition of Treasure Island in the 1942 map.

The original Fremont Street off-ramp (looking southeast).

crete, 30 million board feet of timber, and 22 million rivets. It took an estimated 6,500 workers more than 3 years to complete the construction.

Based in part on rapid advances in science and engineering, the State was soon planning to upgrade the structure; at the same time, the interurban Key System was being phased out in favor of personal automobiles. By 1958, modifications to the bridge were underway to accommodate motor vehicles only: the new bridge would include five lanes of one-way traffic on each deck—the upper deck for westbound traffic and the lower deck for eastbound vehicles—a configuration still in use to this day.



The I-480/Terminal Separator Structure is shown in the 1950s. This structure was demolished in 1991-92. Its footprint provided much needed right-of -way for the construction of the westbound portion of the West Approach

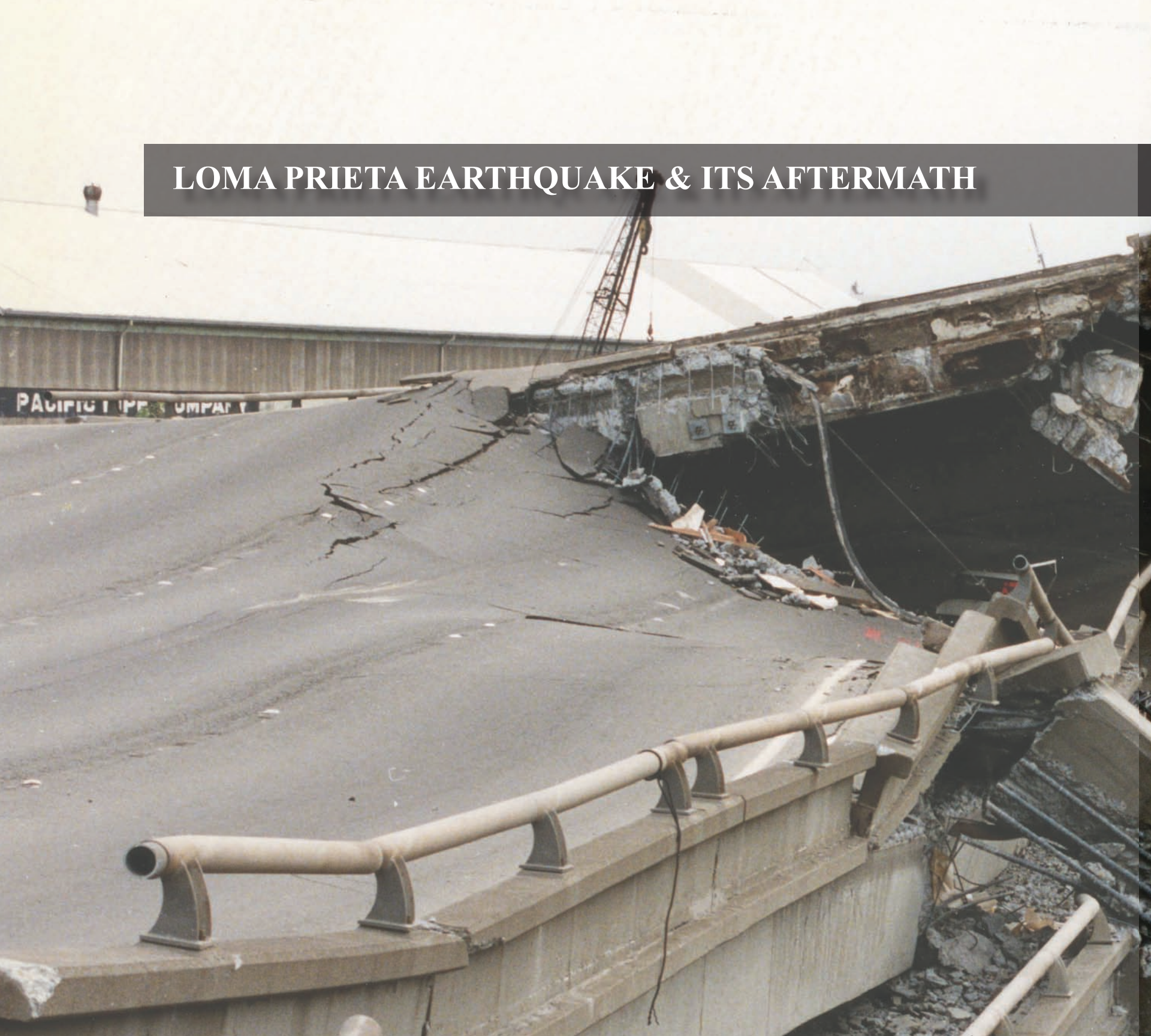
The original Fremont Street off-ramp is shown in the 1950s. Note the "window pane" look of the concrete barrier and the stepped columns that were replicated throughout the replacement structure.

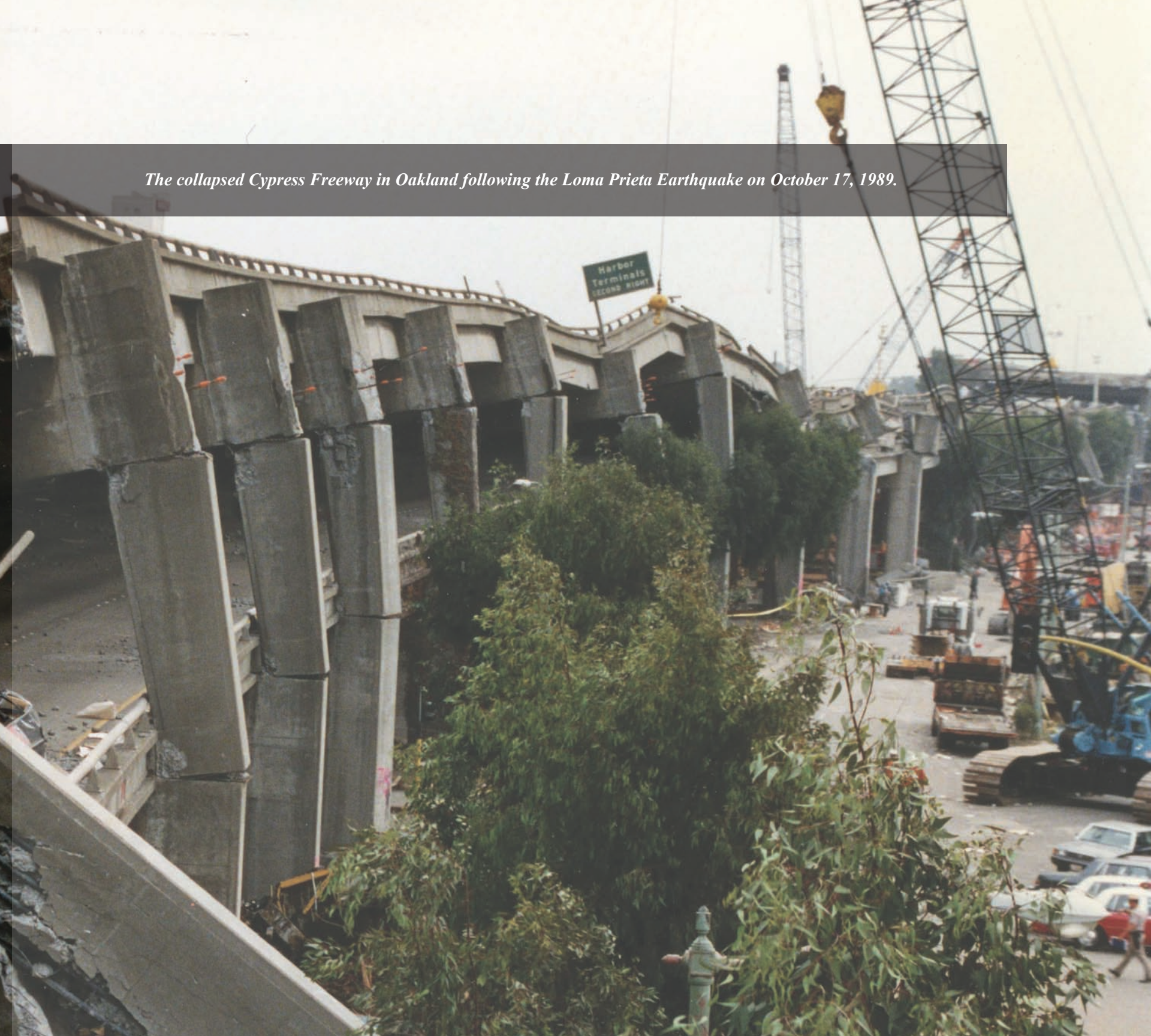
Terminal Separator Structure touchdown onto the I-80 over Perry Street.

The east loop ramp of the Transbay Transit Terminal (with parked buses) over Fremont Street.

I-480 Terminal Separator Structures, as seen from the West Span of the SFOBB.

LOMA PRIETA EARTHQUAKE & ITS AFTERMATH





The collapsed Cypress Freeway in Oakland following the Loma Prieta Earthquake on October 17, 1989.

LOMA PRIETA EARTHQUAKE AND ITS AFTERMATH

On October 17, 1989, the Loma Prieta Earthquake, centered 60 miles to the south of San Francisco, shook the Bay Area for 15 seconds with a magnitude of 7.1 on the Richter scale. The earthquake resulted in the collapse of a 50-foot section of the upper deck of the eastern truss section, and also destroyed the 1 ¼-mile long Cypress Freeway in Oakland.

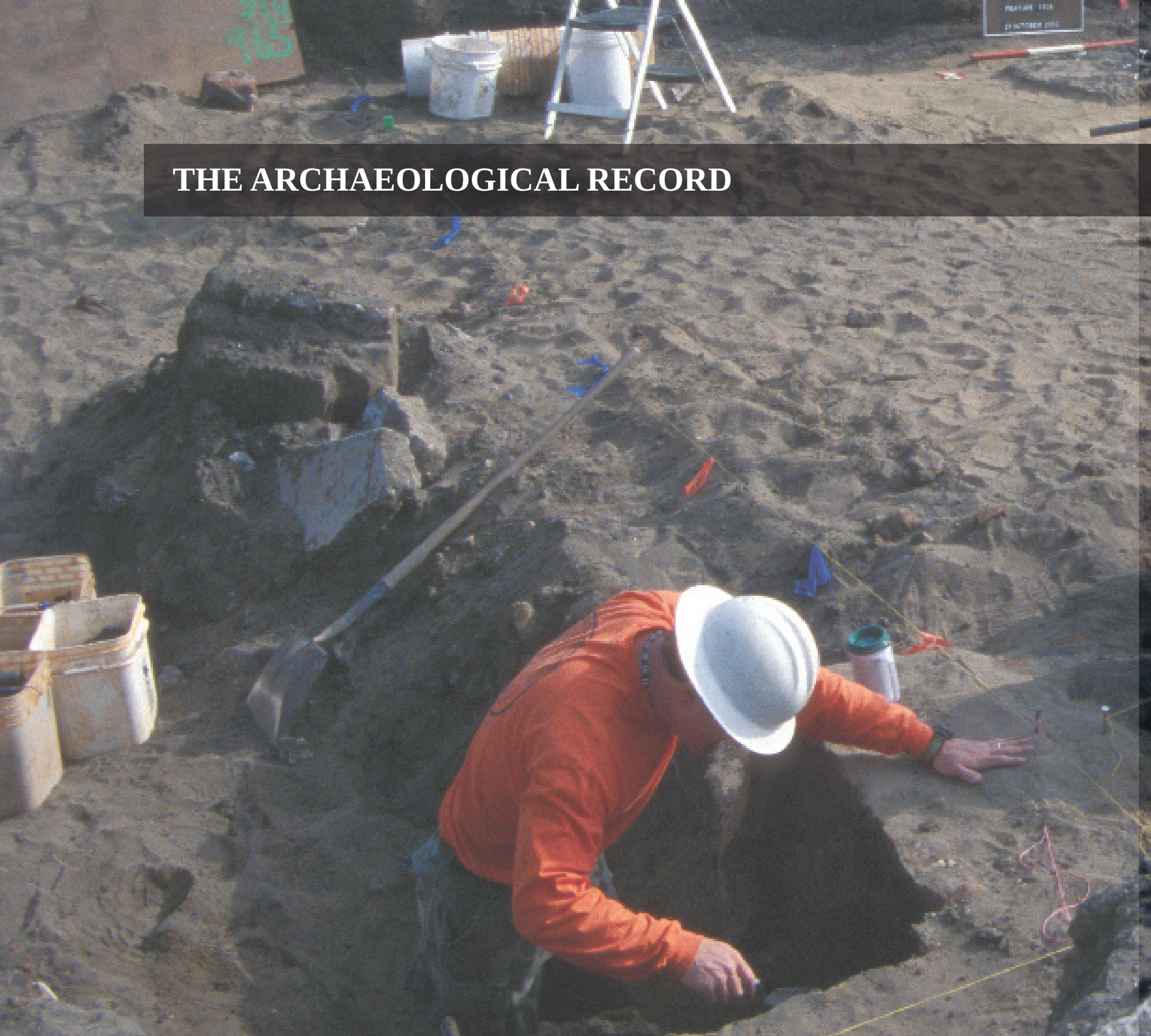
Following the Loma Prieta Earthquake, Caltrans initiated a comprehensive review of all of the State's toll bridges, with a particular emphasis on the SFOBB in recognition of its critical importance to the entire Bay Area region. Indeed, the SFOBB is designated as a "Lifeline" route, meaning it is so critical to emergency response and life saving activities that it must remain open immediately following a major earthquake.

The West Approach structure was originally designed as a double-deck structure from 3rd Street to the Anchorage with a single foundation system supporting both decks—a design similar to the original I-880 Cypress Freeway in Oakland. Although it was built to the highest engineering standards of its time, it did not meet the criteria for a lifeline route as it lacked the seismic resilience required of modern freeways.

To determine how to address the seismic inadequacies of the West Approach, Caltrans convened a Peer Review Panel, consisting of leading university professors, private consulting engineers, and major construction contractors to conduct a peer review of issues relating to seismic design criteria, traffic impacts, complexity and duration of construction, and cost. The panel concluded that a retrofitted structure would not be able to meet the Lifeline criteria. Armed with this data, Caltrans decided to remove and replace the West Approach in its entirety.

The conceptual studies made it clear that the replacement would be extremely challenging: the dense urban setting coupled with a mandate to keep traffic flowing at peak commute times would require a high level of precision, and any deviation could quickly translate into negative headlines and daily media articles. But through Caltrans' careful staging and an unprecedented partnering effort with the contractor, the City and County of San Francisco (CCSF), and other stakeholders such as the Bay Area Rapid Transit (BART), the 6-year project was completed ahead of schedule, within budget, and without a single mainline closure during peak weekday commute hours. Caltrans' approach to construction of the West Approach established standards of conduct that the Department continues to implement on projects around the state.

The collapsed 50-foot span of the westbound deck of the SFOBB following the Loma Prieta Earthquake.



THE ARCHAEOLOGICAL RECORD

Caltrans and Sonoma State University archaeologists are conducting investigations prior to the start of major construction work on the project.

THE ARCHAEOLOGICAL RECORD

A key step in preparing for construction on any major project is completing an archaeological investigation. Although State and federal laws require that historic and prehistoric resources be protected, when destruction is unavoidable—as was the case with the construction of the new West Approach structure—studies are undertaken to retrieve information that would otherwise be lost forever.

Caltrans, in cooperation with the State Office of Historic Preservation, concentrated the archaeological investigation work on a six-block area within the project limits and contracted the Anthropological Studies Center (ASC) at Sonoma State University to perform the study. Using census information, city directories, and other historical records, researchers determined that these blocks would yield the greatest amount of data. Some other areas, such as the location of an 1870s lead paint factory, proved too costly for excavation. In fact, the former industrial use of the SOMA area meant that many soils were contaminated and could pose a safety hazard for the researchers.

In the spring of 2001, archaeologists began investigating the six-block area; by the time the investigation was completed in 2003 it was the largest urban archaeological excavation ever conducted in the city of San Francisco, providing stories of people who lived in the neighborhood during the late 1800s.

Archaeologists using trowels to more clearly define archaeological features beneath elevated freeway.

Archaeological investigations prior to the start of construction.

By 1849, nearly 30,000 people, most living in tents, had settled in San Francisco. With the coming of the Industrial Revolution of the 1860-70s, the marshlands, sand dunes, and valleys of the South of Market area were rapidly developed: hills and dunes were leveled, marshlands were filled and Rincon Hill was bisected by Second Street to provide easy access between the City and the Bay.

The devastating fires that followed the great earthquake of 1906 destroyed most of the structures in the South of Market area and left behind a thick layer of ash and rubble. This record of destruction was evident in the stratigraphy or layers of deposition that were uncovered in the excavation, providing an easy way to differentiate between pre- and post-1906 development.

Much can be inferred from the trash people leave behind. To modern day city dwellers it may seem unlikely that one of the best sources of discarded materials is the privy, or outhouse. But prior to the installation of a sewage system, San Francisco houses typically had a privy "out back", and these pits invariably became convenient receptacles for disposal of unwanted objects in a time before organized garbage collection. With the coming of municipal sewage and water lines in the 1880s, privies and wells were filled and sealed as an unnecessary hazard, and these inadvertent time capsules are valuable tools for historic archaeologists in reconstructing the past.

Written documents do not offer a complete picture since historical records tend to focus on prominent citizens and important events with scant attention paid to the working class. The items unearthed during the archaeological investigation, together with historical records, provide a more complete picture of the residents and their activities, filling a gap in the formal history of the city.

Archaeological Discoveries

With its sweeping views of San Francisco Bay, Rincon Hill was once San Francisco's wealthiest neighborhood. The progression from the prestigious higher elevations to the working class and industrial neighborhoods of the lower bayside is reflected in the materials left behind in the successive layers of buried deposits. As archaeologists would discover, the remains of a hospital, a kindergarten, residences, and businesses would emerge to tell the story of the original SOMA.

The archaeological investigations were conducted one

block at a time and the work areas were fenced for public safety. Heavy machinery removed the asphalt surfacing and modern fill to expose the historic materials. After each deposit layer was excavated, the soil was screened and the artifacts were bagged and shipped to a lab where they were cleaned, sorted and catalogued. By examining the objects, researchers could interpret the lives of the people who used them, creating a narrative that offers insight not only into the lives of individuals, but also into the broader trends and culture of the City.

Toys and other artifacts discovered during the archaeological field work.

Peel Family Residence

Brewer, merchant, and real estate agent, Jonathan Peel, Sr., lived with his wife and children in a large house on Folsom Street from the mid 1850s until his death in 1871. Consistent with its location on the edge of Rincon Hill, recovered artifacts indicate a well-provisioned and fashionable household. Researchers found non-native shells, crystals, and fossils, as well as bones of exotic birds that had been prepared for taxidermy, all indicators that Mr. Peel was a participant in the Victorian craze for collecting natural history items.

The McIver Family

In 1880, Murdock McIver, a Scottish rigger and stevedore, lived with his children in a two-story duplex on a corner lot in Mission Bay. Mr. McIver was a widower and he and his eldest son had been employed off and on during the previous year. He had two daughters, Mary and Carrie. Jobs for women were difficult to come by in the late 19th century and typically involved skills that were employed at home. Archaeological remains recovered from the feature associated with the McIver privy included an unusually rich assemblage of clothing items, including at least thirty separate garments, more than 300 fasteners, and a variety of fabric scraps. The

Near the Folsom Street off-ramp and among building remains, excavation of a privy associated with the Johnathan Peel Sr. family at 540 Folsom Street.

majority of the garments were lighter-weight woolen garments suitable for women. The remains suggest that the young McIver women had a home workshop specializing in creating and altering women's clothing. Their additional income would have supplemented the family's income, especially during times of unemployment for the men.

Silver Street Kindergarten

A block excavated in the Mission Bay neighborhood yielded remains of the Silver Street Kindergarten, a progressive school that took in working class children and offered them an education free of charge, the first school of its kind west of the Rocky Mountains. Its founder, Kate Douglas Wiggan, who would later achieve fame as the author of "Rebecca of Sunnybrook Farm," was an important figure in late 19th century social and educational reform. The school operated from 1878 until it burned down in the fires that followed the 1906 earthquake. Archaeologists unearthed numerous artifacts from a privy that was filled around 1890, including slate and graphite pencils, ink bottles, toys, and a well-preserved ceramic mug inscribed "Merit Rewarded"—recalling the school ritual of awarding a mug of hot chocolate to accomplished students.

Silver Street Kindergarten, ca. 1875
California Historical Society, FN-08725

Mug labeled "Merit Rewarded", discovered at the location of the Silver Street Kindergarten.

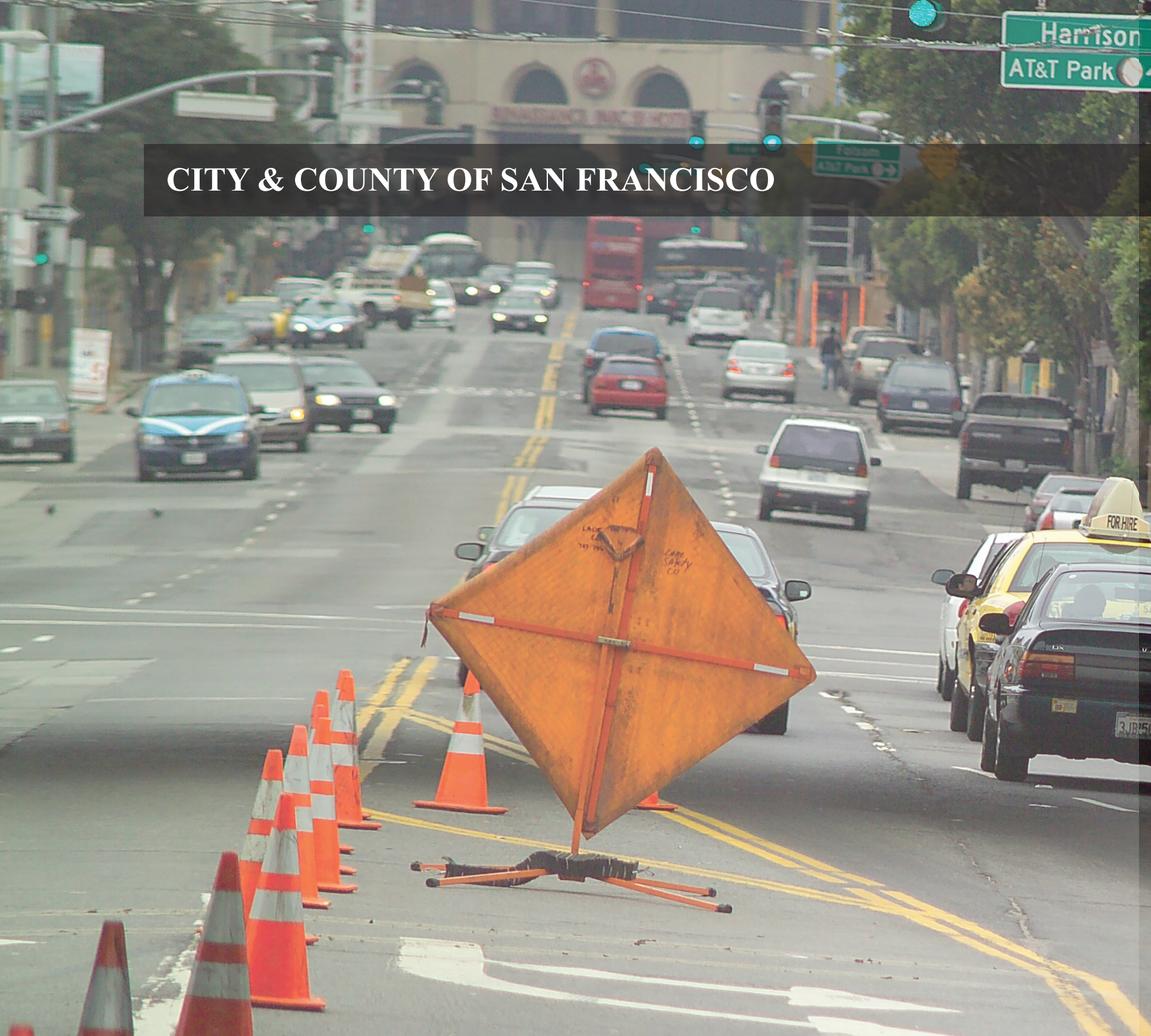
Slate pencils, tablets, and ink bottles discovered in a privy during the archaeological investigations..

St. Mary's Hospital, ca. 1870
California Historical Society, FN-01022

St. Mary's Hospital

Excavation of a thick layer of ash and rubble on the east slope of Rincon Hill exposed the intact wall foundations of St. Mary's Hospital, dating to 1869. A charitable hospital run by the Sisters of Mercy, St. Mary's was a four-story complex of brick buildings that were all destroyed in the 1906 fires.

As a result of Caltrans' extraordinary investigation effort, over 125,000 artifacts, as well as floral and faunal specimens, were collected and cataloged during the West Approach archaeology project and are currently curated at Sonoma State University. This database of everyday objects with tight historical associations is of great value to those examining urban life in 19th century California and will serve as a comparative reference for researchers in Victorian archaeology and history worldwide. The research reveals the daily lives and struggles of those who populated the past—the people who lived through the historic events and changing times that created modern America.



CITY & COUNTY OF SAN FRANCISCO

Two of the major elements of the Traffic Mangement Plan are on display here: Approximately 40 portable changeable message signs were utilized on City streets during the Labor Day 2006 closure. Additionally, CCSF's Parking Control Officers were a major asset in directing the motorists through detour options.

Caltrans made extended use of its Changeable Message Signs system throughout the entire state to warn the motorists of the upcoming closure of SFOBB.

Because of its proximity to city streets, the construction of the West Approach required close cooperation between Caltrans and CCSF. The city's response to this need was unprecedented and cannot be overemphasized:

► The Department of Parking and Traffic (DPT) and the Department of Public Works (DPW) assigned staff engineers to prepare plans and specifications, review plans, expedite permits, and provide parking control during major closures.

► The Municipal Railways (MUNI) operations representatives expedited the relocation of overhead trolley lines frequently, due to the numerous falsework activities during the various stages of the project.

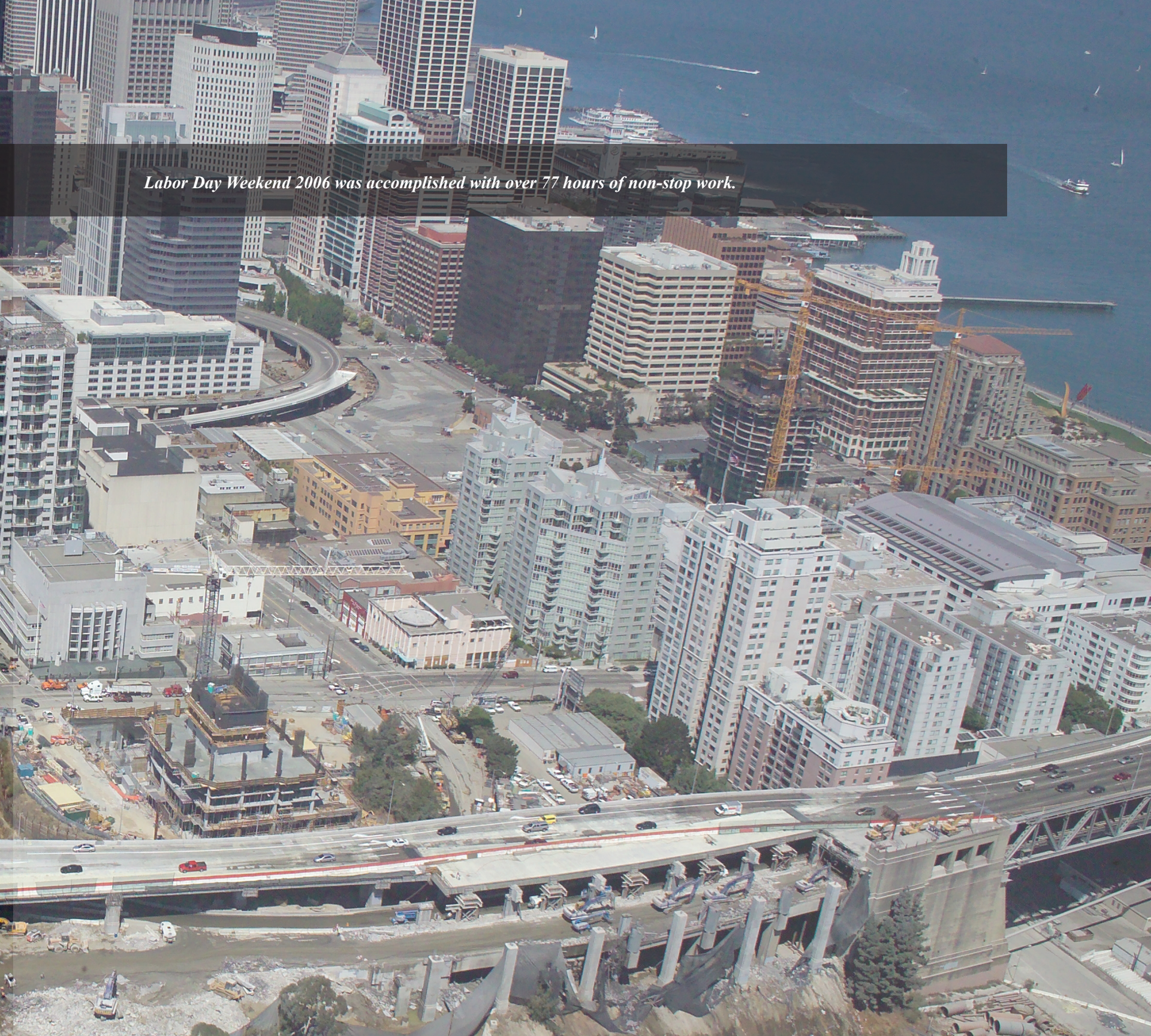
► San Francisco Police Department was instrumental in providing officers on short notice to assist the public on the detour routes during major closures.

From the earliest stages of design the Caltrans/CCSF teams worked hand-in-hand to identify and address traffic management issues, such as developing closure hours for affected city streets and freeway ramps during demolition and during the raising and removing of false work.

With funding from the Toll Bridge Seismic Retrofit Account, CCSF constructed a number of overhead sign structures to familiarize the motorists with various access options to the bridge.

California Highway Patrol was an integral part of the Transportation Management Plan through all the major closures. Here, two CHP cruisers are enforcing the closure of the lower deck of the SFOBB during Labor Day Weekend 2006.

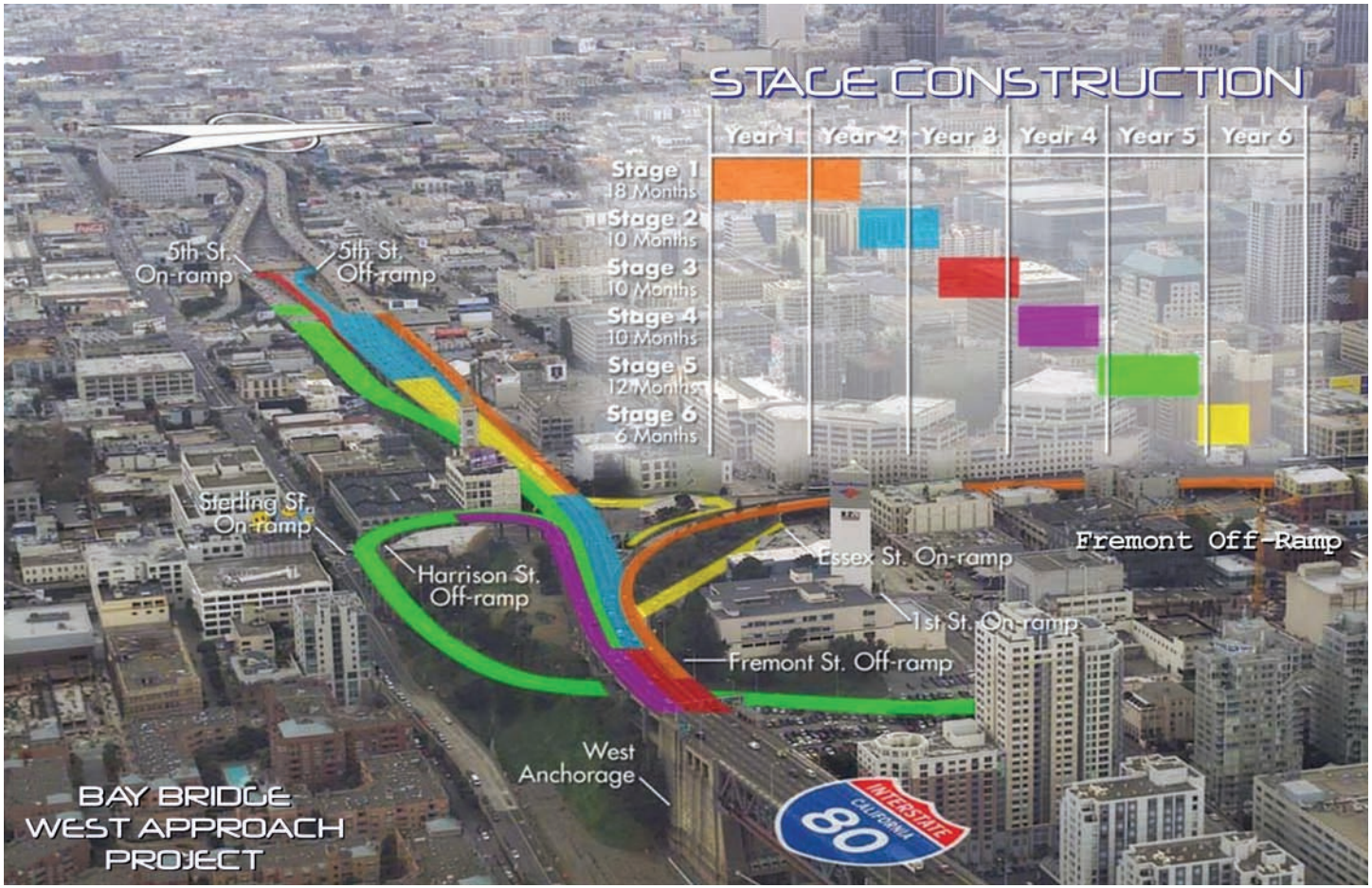
DEFINING AN APPROACH



Labor Day Weekend 2006 was accomplished with over 77 hours of non-stop work.

DEFINING AN APPROACH

SAN FRANCISCO-OAKLAND BAY BRIDGE



The major stages of the project. The construction duration was 6 years.

Defining construction parameters that would be acceptable to the impacted community while minimizing traffic impacts to the 280,000 daily commuters formed the core of Caltrans' approach to the replacement. Through a team-based effort with the DPT and DPW, as well as various community and neighborhood groups, Caltrans defined the following guiding principles for design and construction:

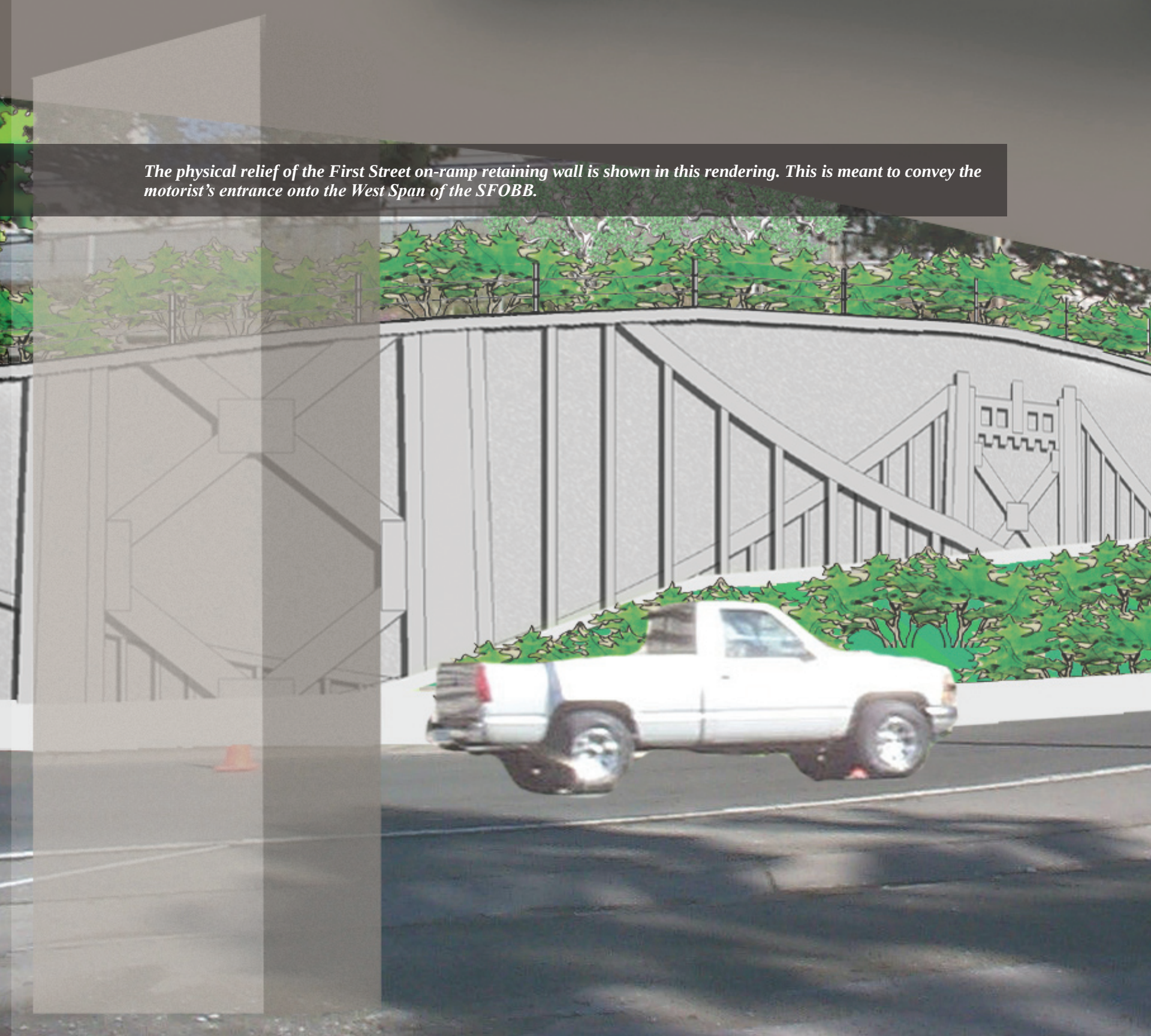
Minimize right-of-way impacts – Several significant properties share a property line with the West Approach, forcing Caltrans to build within the confines of the freeway it was replacing. The removal of the Terminal Separator Structures (TSS) following the Loma Prieta Earthquake provided some much needed State-owned right-of-way for replacement activities.

Mimimize mainline freeway impacts during the commute hours – Any loss of mainline capacity during the weekday commute hours would result in extremely heavy congestion. Caltrans engineers determined that a loss of freeway lanes could not be tolerated, and the project was staged to accommodate full freeway traffic during peak periods and all weekday commute hours. The construction team fully realized this goal: during contruction, the West Approach never experienced a reduction in mainline capacity during peak commute hours.

Accommodate residents and businesses – Commuters and residents often have opposing needs: commuters want construction to occur at night, while residents want the work performed during day so their sleep is not disturbed. Caltrans balanced these conflicting needs by devising a multi-phase staging plan that reduced impacts on each group. Effective communication to raise awareness and understanding was central to this successful staging effort.

Maintain communication – Caltrans conducted over 300 meetings and site visits with community and business groups affected by construction to solicit input in developing and executing the project's Transportation Management Plan. The plan laid out details for each closure and also identified specific traffic management activities. The public's input into this planning process was critical to its success.

DESIGN EFFORT & CHALLENGES



The physical relief of the First Street on-ramp retaining wall is shown in this rendering. This is meant to convey the motorist's entrance onto the West Span of the SFOBB.

DESIGN EFFORT AND CHALLENGES

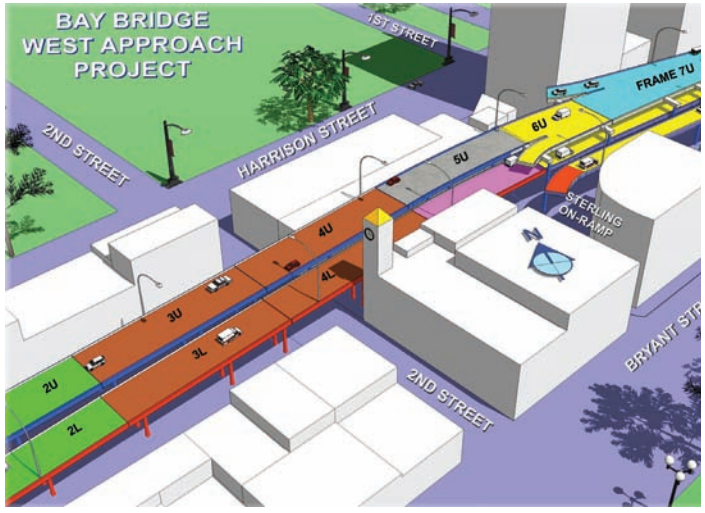
Roadway and bridge designers worked closely to confirm the feasibility of the design and staging plans. Through a series of brainstorming sessions, some stretching non-stop over a number of days, the design teams identified the precise limits of demolition. The demolition of the section of the structure adjacent to the San Francisco anchorage at Beale Street presented a particular challenge, since the new alignment had to tie into the existing bridge at the anchorage.

The teams established several design factors to guide development of the plans:

Independent foundations. Each deck of the new structure had to be constructed on an independent foundation system in order to ensure that the structure withstands a major seismic event. The catastrophic collapse of the Cypress Freeway during the Loma Prieta Earthquake was due in part to the fact that both decks of the structure were constructed on a single foundation system. For the new West Approach a system of impressive outrigger columns would be erected to support the westbound structure in the vicinity of the San Francisco anchorage.

Alignment. The independent foundation system requires that the new structure be aligned side-by-side for a much longer distance. This alignment would also improve the aesthetics of the structure since it would reduce the "tunnel effect" inherent in a double-deck design. While the original eastbound deck slid underneath the westbound structure between Third and Second Streets, the new eastbound structure would start transitioning east of the Second Street .

Liquifaction. The new foundation system was solidly embedded into the bedrock, requiring the use of deep piles. Soil conditions vary widely beneath the structure: the anchorage area in the vicinity of Rincon Hill



A depiction of the frames of the new structures.

is founded on solid rock, but the remaining portions of the structure are underlain primarily by Bay mud (the former China Basin Harbor) that is prone to liquefaction. New piles up to nine feet in diameter would be installed, some drilled to depths of 100 feet below ground level in order to reach bedrock.

Retrofit vs. replacement. The need to tie into the existing bridge dictated that a portion of the lower deck adjacent to the anchorage would be retrofitted rather than replaced. The retrofit would include the foundation systems of the four bents west of the Beale Street anchorage.

Travel Lanes and Shoulders. The original structure lacked any shoulders and the 11-foot wide travel lanes were narrower than the currently mandated 12-foot width, resulting in potential gridlock during minor traffic incidents. The new structures were designed with standard width lanes and 10-foot wide shoulders on both sides of the roadway, greatly improving operations and safety throughout the corridor.

Storage and staging areas. The location of storage and staging areas available to the contractor can dramatically affect construction bids. The Department made available to the contractor all State-owned parcels underneath and adjacent to the structure.

A depiction of the frames of the new structures. Note that the new structures, utilizing the right-of-way freed by the demolition of the original Terminal Separator Structures, are side-by-side much longer than the original structure.

Aesthetics. The new structure is designed to complement its surroundings to the greatest extent possible. The bridge structure, support columns, and safety barriers provide a cohesive and united structure. The structure is designed with a continuous horizontal reveal to provide shade and shadow and to reduce its apparent visual mass. The structure columns and bent caps are also detailed and stepped to mimic the archi-

Some of the key people on the project. Right to left; Raoul Maltez, Caltrans Traffic Manager; Ivan Ramirez, Caltrans demolition and falsework lead; Ken Terpstra, Project Manager; Dennis Turchon, Area Construction Manager; Deanna Vilcheck, Resident Engineer; Wassim Al-Basha, Caltrans Structures lead; Mike Zamora, General Superindendent, Cleveland Wrecking Company; and Bill Torres, Area Manager, Cleveland Wrecking Company.

tectural form of the original structure and the massive western anchorage of the West Spans. The safety barriers would be provided with an aesthetic veneer that reflects the original "window pane" barrier of the 1936 structure.

In addition to the architectural treatment discussed above, additional detailing was also considered for other sensitive project improvements:

Construction of the Fifth Street on-ramp and temporary eastbound structure while traffic uses a temporary ramp onto the orginal eastbound structure.

► An architectural relief was applied to the large and visually prominent First Street on-ramp retaining wall to add interest and to announce the ap-

proach to the West Span for motorists. The abstract forms of the West Span's structural elements are meant to provoke curiosity and add drama to the crossing.

► A safety barrier/trellis was provided at the top of the roadway barrier adjacent to the Clock Tower building, screening residents from adjacent traffic. The barrier/trellis is designed with strong rectilinear forms that relate to the architecture of the Clock Tower; the forms will be softened with vine planting.

Falsework for Frame 3 of the westbound structure adjacent to Third Street. The round column on the right is for the temporary eastbound structure underneath the permanent westbound structure.

► As part of the Beale Street opening in 2007, security fencing and barriers were designed to complement the angular forms of the adjacent anchorage, and to enhance the pedestrian experience.

The design included the construction of eight frames (a major structural section from hinge to hinge) for the westbound structure, while the eastbound structure consisted of seven frames. The availability of the right-of-way freed by the demolition of the TSS allowed the construction of frames 1 through 6 of the new westbound structure to occur adjacent to the original structure, without any traffic impacts.

To ensure that the staging concept was feasible, Caltrans held an initial high-level Constructability Review meeting with leading consulting engineers and contractors in 1995, and held two additional sessions with engineers and contactors in 2001 following the finalization of the staging plans. On contracts of this magnitude and complexity, contractors usually propose their own staging plans and try to find better and faster ways to stage the project. It's worth noting that after a thorough review of the West Approach plans, the contractor recommended changes to only minor details, indicating that the staging plan devised by Caltrans engineers could not be improved upon.

TRANSPORTATION MANAGEMENT PLAN

A SFPD officer directs traffic on Second Street. Close cooperation with the SFPD was an integral part of the successful Transportation Management Plan.

TRANSPORTATION MANAGEMENT PLAN

SAN FRANCISCO-OAKLAND BAY BRIDGE

A Transportation Management Plan (TMP) consists of measures to reduce traffic congestion in construction areas. TMPs commonly employ detours, portable message signs, traffic control officers, increased public transportation, public outreach, and project staging to assist motorists during construction.

After consulting with the CCSF and numerous local, regional, public, and private parties, Caltrans developed the West Approach staging plan by taking full advantage of the State-owned land made available by the demolition of the Terminal Separator Structures in 1991-92. This additional land allowed Caltrans to construct the majority of the westbound structure without any interference with mainline traffic.

Demolition of the 1,000-foot long section of the upper deck during the Labor Day Weekend 2006 was critical to the on-time completion of the project.

The TMP included several major elements:

Interagency coordination. Caltrans worked closely with the CCSF to address community concerns. Relocating the MUNI overhead trolley lines, installing directional overhead sign structures, and partnering with SFPD and DPT parking control officers ensured the smooth flow of traffic on city streets during major closures.

BART. Caltrans allocated significant funding to provide additional BART service during weekends when demolition operations would impact on-ramps and mainline capacity. The closure of the eastbound deck for the entire 2006 Labor Day Weekend required extensive coordination with BART. BART management and staff performed flawlessly in providing additional capacity and manpower to ensure that alternative modes of transportation were available during all major closure weekends.

Financial incentives. Caltrans provided substantial financial incentives to the contractor to minimize the

Three of the major traffic pattern switchovers throughout construction. Left to right: Switching the westbound traffic onto the partially completed new structure in September 2005. Removal of the northern portion of the upper deck adjacent to the anchorage following the split of mainline westbound traffic in June 2006, and the switch of westbound traffic to the north in order to allow for the demolition of the southern portions of the anchorage spans.

number of impacted weekends. The contractor would receive a bonus if he could meet tangible demolition goals on the achorage spans.

CHP. Caltrans utilized the extended services of the CHP to control freeway traffic. Throughout all major closure weekends the CHP deployed cruisers around the clock on all approaches to the freeway.

Public Information Office. Caltrans created a fully-staffed Public Information Office adjacent to the project site. The office was staffed by two full-time Public Information Officers (PIO): one responsible for interacting with the community and citizens, and the other responsible for all interactions with media outlets.

Collateral. Caltrans produced a number of informational videos, animated simulations, and other exhibits

The switchover of the westbound traffic from the old structure to the paritally completed new structure in early 2005 provided space for the demolition of the anchorage spans.

to educate the traveling public of major traffic shifts. Millions of viewers watching the local news in the summer of 2006 saw the animated simulation of the westbound mainline traffic split, while viewers in the winter of 2007 saw the simulation of the eastbound traffic switch onto the temporary eastbound freeway.

The new Fremont Street off-ramp under construction in late 2004. Note that ramp traffic has been diverted to the western loop ramp of the Transbay Transit Terminal using a temporary structure.

CONSTRUCTION PHASE OF THE PROJECT

Stage 1 - Construction of the Fremont Street off-ramp above the Harrison Street off-ramp. The round columns and bent caps in the foreground supported the temporary widening of the westbound structure.

CONSTRUCTION PHASE OF THE PROJECT

On June 6, 2003, Caltrans awarded the construction contract to Tutor-Saliba Corporation (TSC), one of the nation's most well-known construction firms. Caltrans had every reason to be confident in the capabilities of TSC, as the firm was at the time successfully engaged on the Caltrans' $1 billion seismic retrofit of the Richmond-San Rafael Bridge. As expected, through the six years of construction, TSC diligently completed the seven identified project stages, even beating the schedule on several occasions and thereby allowing Caltrans to minimize disruption for motorists and residents alike.

Stage 1

The reconstruction of the Fremont Street off-ramp—the main gateway into downtown San Francisco—was highlighted in Stage 1 of the contract. Caltrans' mandate to maintain full traffic flow during commute hours was put to the test as several critical activities were implemented:

► Demolition of a 1-½ block portion of the entrance loop ramp into the Transbay Transit Terminal.

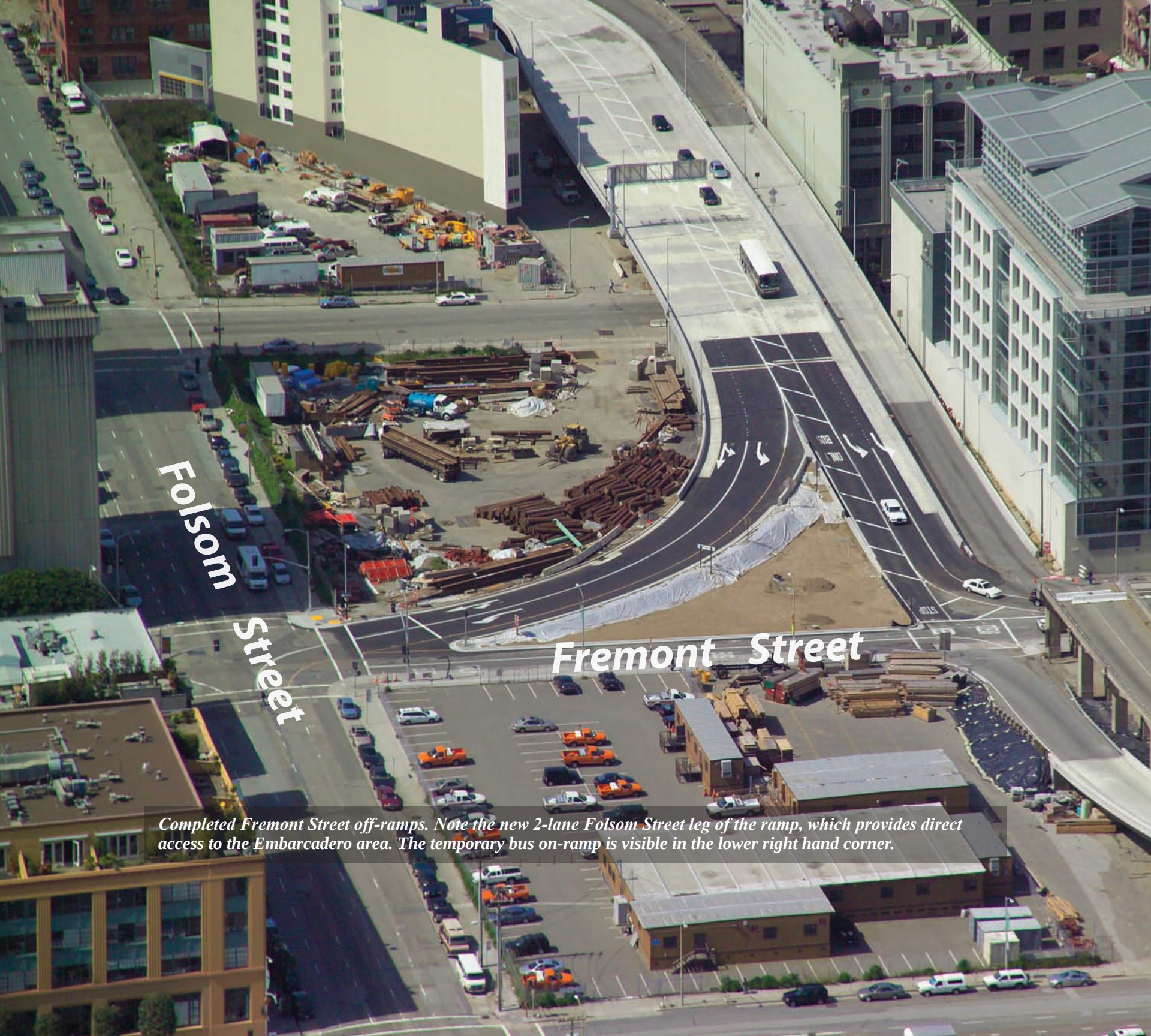
► Construction of a temporary touchdown onto Fremont Street.

► Demolition and reconstruction of the original ramp, including the addition of two lanes to provide direct access to Folsom Street/Embarcadero, once traffic was rerouted onto the temporary Fremont touchdown ramp.

► Construction of an interim bus access on-ramp from Fremont Street, to maintain continuity of bus service into the terminal.

► Construction of frames 1 through 4 of the permanent westbound structure, mostly over Perry Street.

Demolition of the Fremont Street off-ramp. This demolition occurred over a single weekend, rather than the 4-5 weekends originally contemplated in the plans.



Completed Fremont Street off-ramps. Note the new 2-lane Folsom Street leg of the ramp, which provides direct access to the Embarcadero area. The temporary bus on-ramp is visible in the lower right hand corner.

CONSTRUCTION PHASE OF THE PROJECT

Depiction of the four quandrants of the anchorage spans that were demolished in three separate occassions.

Stage 2

Work continued on the demolition and reconstruction of the westbound structure, with a focus on the construction of frames 5 and 6, closer to the Rincon Hill. Once this work was completed in September 2005, Caltrans then switched westbound traffic to the partial new westbound structure, using the newly completed frames 1 through 6. The traffic switch opened up space for the demolition of the anchorage spans and the construction of frames 7 and 8.

The highlight of this stage was the first major demolition of one of the quadrants adjacent to the anchorage. There is a total of four quadrants described in this section, including two portions on the northern half and two portions of the southern half of the upper deck.

The first quadrant to be demolished was the northern half of the upper deck from Bent 43 to Bent 51 of the original structure. To ensure the structural integrity of the remaining southern quadrant, Caltrans implemented three measures to provide structural redundancy:

- ► Temporary support columns were erected at each bent prior to demolition and high strength rods were installed transversely through the bent caps;
- ► External pre-stressing was added at each bent; and

September 2005 - Nighttime demolition operations for the first quadrant of the achorage spans.

The "window pane" look of the concrete barriers from the original structure were duplicated on the new structure.

► An innovative temporary support system was designed and constructed at the location of the original Bent 43, which was considered the most vulnerable bent because of its span width. This temporary support system, affectionately known as the "Superbent", spanned the entire width of the freeway at its widest point and provided additional redundancy for the temporary support columns.

This major demolition effort took place in the fall of 2005, and required a series of deck closures and detours over a period of five weekends. During these demolition weekends, the westbound upper deck traffic was detoured onto City streets from the Fremont Street off-ramp, while the eastbound lower deck traffic used the southern three lanes of the structure for access to the East Bay.

Stage 3

The highlight of this stage was the demolition of the second quadrant on the northern half of the upper deck adjacent to the anchorage, which occurred in June 2006, and required the separation of lane four of the westbound mainline traffic from the remaining three through lanes, and also necessitated the closure of the lower deck for two nights. This reconfiguration remained in place for three months and could have resulted in ongoing congestion, but traffic delays were minimal thanks in large part to the concerted outreach effort prior and during construction.

Stage 3 also included the demolition of portions of the original eastbound structure between Third and Fourth Streets. This work was undertaken to provide much needed space to support the construction of the temporary eastbound detour structure, which was constructed underneath the permanent westbound structure.

Following the completion of frames 1-6 of the new structure, the westbound traffic was switch onto the new structure in early 2005. This opened up space to demolish and construct frames 7 and 8 of the westbound structure adjacent to the anchorage.

Following the placement of the "Superbent" and tendon cutting at Bent 43, a test load was placed on each lane to ensure that the support systems bearing the weight of the upper deck performed as designed.

Stages 4 and 5

The demolition of the Harrison Street off-ramp occurred in the early phases of Stage 4. Close cooperation between Caltrans and TSC allowed the demolition to occur over one single weekend rather than the four to five weekends originally planned! Off-ramp traffic was diverted to the new Fremont Street off-ramp, which was designed to provide the necessary capacity.

Stages 4 and 5 involved the removal of the remaining two quadrants of the anchorage spans on the south side of the structure, and also involved routing traffic to the temporary eastbound structure so the original structure could be demolished.

Demolition of the original eastbound structure following the eastbound traffic switch in April 2007.

The demolition of the southern quadrants of the upper deck in September 2006 was a much larger endeavor than the first two events, entailing the removal of more than 20,000 tons of concrete, and requiring the closure of the entire eastbound SFOBB for 77 hours over Labor Day Weekend. This demolition was originally slated to be completed over six to nine weekends so that traffic flow could be maintained at all times; however, TBPOC, in close cooperation with its partners, made a strategic decision to accomplish this work over one weekend through the closure of the entire lower deck. TBPOCs' logic in choosing this "brute force" approach was based on the decision that a complete closure over a single weekend would be preferable to a 60 percent reduction in capacity over a series of six to nine weekends. (The original approach would have provided only two lanes for eastbound traffic throughout the six to nine weekend construction period).

To ease the effect of this extensive demolition and closure of the lower deck, TBPOC implemented a comprehensive dust control and air monitoring plan, and also arranged for 24-hour BART service to the East

April 2007 - Demolition of the major portion of the eastbound structure was accomplished in just 17 days.

Final prepartions are being made for the traffic switch from the orginal eastbound structure onto the temporary structure.

Bay for the duration of the closure. The demolition subcontractor, Cleveland Wrecking Company, mobilized a force of over 250 workers and more than 100 pieces of equipment from across the country to provide sufficient capacity for the work.

The Labor Day Weekend closure was preceded by an extraordinary public outreach campaign that included television and radio spots across the entire Bay Area and beyond, public announcements in movie theaters, banners in a number of strategic locations, the extended use of CHP and SFPD officers for traffic control, and the distribution of approximately 500,000 flyers. State legislators and the CCSF Board of Supervisors were briefed and worked closely with TBPOC to inform their constituents of the importance of the compressed demolition schedule. This outreach effort was honored by the California Transportation Foundation in 2007 as the Community Program of the Year, and has now become the template for a statewide approach on similar projects.

Following the construction of the temporary eastbound structure in Stages 4 and 5, Caltrans rerouted eastbound traffic onto this temporary structure and proceeded to demolish the majority of the original eastbound structure over a period of 17 days, instead of the originally planned 110 days. Once again, the Department's extensive outreach to residents and motorists—including the production of a second animated drive-through simulation—effectively educated the public about the planned traffic shift and greatly reduced potential confusion.

Frame 8 of the upper deck being constructed following the completion of the demolition.

CONSTRUCTION PHASE OF THE PROJECT

Caltrans staff are setting up the 24-hour command center prior to Labor Day Weekend 2006 closure of the lower deck of the SFOBB.

In addition to the Caltrans staff, the command center was staffed by a number of the stakeholders, including the CCSF Department of Parking and Traffic, SFPD, CHP, and MTC's 511 staff.

Summer 2007 - Construction of the eastbound structure columns following traffic switch to the temporary structure.

Stage 6 and 7

With the temporary detours in place, Caltrans turned its focus to Stage 6 and constructing the new permanent eastbound structure and the Harrison Street off-ramp. Stage 7 saw the completion of this work, including the opening of the permanent eastbound and west bound structures. Once the eastbound traffic had been switched onto the permanent alignment, the temporary structure was demolished and the entire West Approach corridor achieved the desired seismic safety.

The falsework system for the new Harrison Street off-ramp.

Construction of the permanent eastbound structure. Note that the eastbound traffic has been diverted onto the temporary structure on the left.

PUBLIC OUTREACH EFFORT

In preparation of the Labor Day Weekend 2006 closure of the lower deck of the SFOBB, Caltrans held numerous press conferences to disseminate up-to-date information to the traveleing public.

PUBLIC OUTREACH EFFORT

Labor Day Weekend 2006: Changeable Message Sign notifying westbound motorists of the closure of the lower deck of the SFOBB.

For major closures and construction activities Caltrans places special emphasis on keeping the traveling public and affected residents and businesses well informed. Typical outreach efforts include media advertisements, flyers, mailers, door-to-door canvassing, and public service announcements.

Because of its location and high traffic volumes, the planned closures of the West Approach warranted additional publicity. To maximize public outreach, Caltrans maintained a fully-staffed public information office in SOMA to organize community meetings, inform the public of upcoming activities, and address concerns of residents and business owners. Margena Wade, the project's community affairs specialist, succeeded in giving the project a human face through her tireless presence in the community. Her extraordinary success hinged upon her ability to address concerns and complaints expeditiously through meetings with neighborhood groups and numerous after hours get-togethers.

Bart Ney, official Caltrans spokesperson, was also an indispensable member of the project team throughout construction. Bart was the single point of contact for all media, responsible for conducting interviews and tours of the project area to keep the media informed of upcoming work and the relevance of the project to local residents, commuters, and visitors.

Evolution of the Outreach Effort

The scope of the planned closures would be unprecedented in Caltrans history and offered an opportunity to study the effectiveness of various methods of communication to improve future outreach efforts.

The seismic retrofit of the West Approach included three major traffic shifts, as well as four major closures timed to the following activities:

► Switchover of the westbound traffic to the new structure in September 2005.

Dennis Turchon, Area Construction Manager, is briefing the media prior to the demolition of the 1,000-foot long section of the upper deck during the Labor Day Weekend 2006.

► Removal of Fremont Street off-ramp in April 2004.

► Demolition of the first northern quadrant in fall 2005.

► Splitting of the mainline westbound traffic adjacent to the anchorage in June 2006.

► Demolition of the second northern quadrant in June 2006.

► Closure of the entire lower deck over Labor Day Weekend 2006 to demolish the two southern quadrants of the upper deck adjacent to the anchorage.

Margena Wade, Project Public Information Officer, conducting an interview during Labor Day Weekend 2006.

► Switchover of the eastbound traffic onto the temporary eastbound detour structure in March 2007.

After each closure, Caltrans assessed public feedback and modified subsequent public outreach efforts to be increasingly more proactive and responsive to the local community and traveling public. Some examples illuminate the evolution of the public outreach process.

Initially Caltrans planned to avoid full closure of the structure during demolition activities, and also planned to limit all mainline and ramp closures to weekends and off-peak hours. If implemented, this mandate would have resulted in a much longer construction period, and the Department instead looked for ways to streamline demolition and construction without creating undue congestion. For instance, during the demolition of the Fremont Street off-ramp in April 2004, Caltrans (in consultation with DPT) decided to close the Essex and First Street off-ramps for an entire weekend, allowing the Fremont Street off-ramp to be demolished in one weekend rather than four or five as originally planned.

A large contingent of the media was present to record the unprecedented demolition of the Labor Day weekend 2006.

PUBLIC OUTREACH EFFORT

Labor Day Weekend 2006 - Caltrans and contractor principals investigating the demolition area. From left to right: Jack Frost, Senior Vice President, TSC; Fred Morell, Project Manager, TSC; Mike Forner, Principal Construction Manager, Caltrans.

Demolition of the 1,000-foot long section of the upper deck during Labor Day Weekend 2006. Over 10,000 cubic yards of concrete (1,000 truckloads) were demolished during this weekend alone.

The demolition was successfully completed, but public comments and complaints clearly indicated the need for a more robust outreach effort, and the next planned closure had to proactively incorporate that feedback.

The second closure, in September and October 2005, involved the demolition of the first northern quadrant of the anchorage spans, including portions of the West Approach over and adjacent to the Essex Street, First Street, and Sterling Street on-ramps. To facilitate this work, Caltrans planned to close the eastbound mainline for a period of six hours over one weekend, and needed to proactively reach potential motorists well in advance to allow them to make alternate plans for that period of time. To achieve a higher level of exposure for the upcoming work, Caltrans aggressively implemented a number of actions. Starting a few months prior to actual demolition work, the Department advertised in local media outlets, including major regional television affiliates, Bay Area newspapers, and radio news stations, and maintained regular contact with these outlets through press releases and updates.

During the actual construction period, Caltrans also made use of extensive on-the-ground support:

- Installing changeable message signs on City

streets and on freeway approaches to the work area.

► Contracting up to 100 DPT parking control officers, SFPD police officers, and CHP officers per weekend.

Labor Day Weekend 2006 demolition of upper deck by Cleveland Wrecking Company.

► Arranging for additional BART service during the two weekends when impacts would be the greatest.

The feedback from the traveling public indicated that while this second outreach effort was much more successful than the effort for the demolition of the Fremont Street off-ramp, outreach still needed to be enhanced for the next planned closure in June 2006, when the second northern quadrant of the anchorage spans would be demolished.

For the third closure Caltrans repeated the successful outreach efforts from the second closure while also creating an animated drive-through of the planned westbound mainline traffic split. The animation was widely distributed among media outlets well before the closure and was seen by millions of viewers. As a result of this increased exposure, public feedback following the third closure was largely positive.

The fourth and final closure was also the most ambitious. Over the 2006 Labor Day Weekend Caltrans planned to demolish 1,000 feet of the upper deck, and

PUBLIC OUTREACH EFFORT

Simulated drive-through animations were a major part of Caltrans' public outreach effort throughout the project.

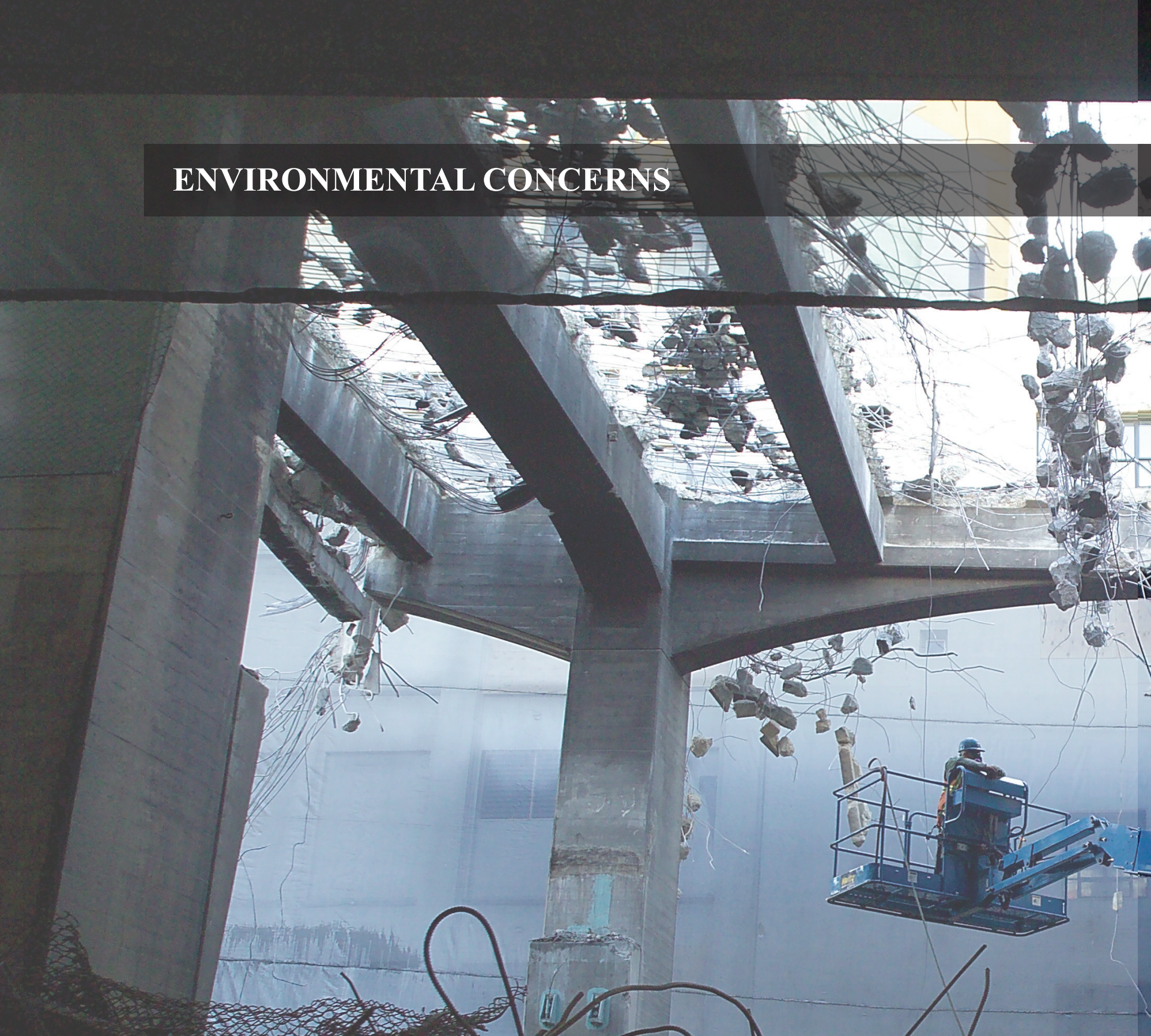
to remove the estimated 10,000 cubic yards of debris to be generated by the demolition. In preparation for this effort, the Department embarked on an unprecedented outreach campaign plan to minimize traffic impacts, using the lessons learned from the previous three major closure events.

The Public Information Officers' (PIO) approach in handling all public and media outreach effort included a close partnership with the Metropolitan Transportation Commission (MTC), whose 511.org website proved instrumental in providing traffic information and presenting alternative modes of transportation. The PIO issued advance press releases prior to the event and worked closely with media outlets to disseminate information and provide interviews before and throughout the Labor Day Weekend closures. During the four weeks leading up to the event, the PIO and MTC PIO made presentations and distributed information to state and local legislators as well as local residential and commercial stakeholders.

Caltrans also purchased extensive time for public service announcements in targeted media outlets, including major local and regional newspapers, radio and television outlets, and movie theaters. Construction Fact Sheets were developed detailing the lower deck closures with detour maps and emphasized transit alternatives. Fact Sheets were disseminated twice by e-mail to contacts throughout the Bay Area and by hardcopy to a wide variety of stakeholders including Treasure Island residents, San Francisco International Airport, Oakland Airport, San Jose Airport, Sacramento Airport, all car rental agencies, hotels, charter transportation companies, goods movement companies, taxi companies, and other similar entities. Because of the importance of the holiday weekend, over 50 workers from local community organizations were recruited to go door-to-door and distribute 300,000 Fact Sheets, an increase from the 100,000 fact sheets disseminated during the June 2006 closure. Caltrans also set up information booths at the major Bay Area airports to provide out-of-state travelers with commute alternatives.

This extraordinary and comprehensive outreach effort ensured that delays during demolition were minimal. The program was universally hailed as a success by all stakeholders, including the media, and Caltrans employed these same tested and refined outreach strategies during 2007 Labor Day Weekend, when the entire SFOBB was closed to remove and replace the Yerba Buena Island Viaduct structure. Indeed, Caltrans is applying the lessons learned from the West Approach closures to its construction projects across the state.

ENVIRONMENTAL CONCERNS



Demolition of the eastbound structure (lower deck) adjacent to the Clock Tower - March 2007.

ENVIRONMENTAL CONCERNS

The West Approach structure is located in a densely-populated urban environment and as such the primary environmental concern voiced by the community was dust generated by excavation and grading. To address this concern, the Department established an extensive dust control program that included constant watering of debris generated during construction activities and the use of giant misters during major demolition.

Caltrans implemented an air monitoring program during the Labor Day 2006 demolition and during the demolition work on the original eastbound structure in spring 2007. Air monitoring stations were established on the construction perimeter and continuous readings were analyzed to ensure that the air quality was within

Giant misters were used continuously during the major demolition work to mitigate dust.

Erection of protective dust and debris screen on Stillman Street prior to demolition work on the eastbound structure (upper deck).

Labor Day Weekend 2006 demolition work is ongoing. Note the use of the protective dust screen on Rincon Hill.

the federal and state guidelines. Exceeding these guidelines could have resulted in costly and time consuming delays related to stop work orders; however, due to the great teamwork between TSC's and Caltrans, and the contractor's strict adherence to the requirements of daily watering, the air quality remained within acceptable limits throughout the construction period.

The contractor was also required to implement a comprehensive Storm Water Pollution Prevention Plan (SWPPP) to ensure that any construction-related runoff entering the City's drainage system was free of pollutants and construction debris. Both Caltrans and TSC's dedicated staff to monitor compliance with the SWPPP throughout the construction period, and successfully met all requirements.

LANDSCAPE CONTRACT

The West Approach structure is the gateway from the SFOBB into the city of San Francisco, and the newly replaced Fremont/Folsom Street off-ramp now provides a direct connection to major tourist destinations such as the Embarcadero, Fisherman's Wharf, and Chinatown. The Fifth Street touchdown provides ready access to mid-town attractions such as the Moscone Center and Sony Metreon.

Caltrans will incorporate context-sensitive design and landscaping that reflects the urban quality of San Francisco and relates the project to the surrounding landscape. All available "green space" within the project limits will be planted with drought tolerant trees, shrubs and ground cover to provide seasonal interest and to compliment and soften the structural elements of the project. An automatic irrigation system will be installed and a three-year plant establishment period will ensure the plantings are fully established. Architectural lighting is also being explored as an additional aesthetic component. Caltrans anticipates to award the landscaping contract in 2009.

The first test panel of the physical relief for the First Street retaining wall was constructed in December 2007.

SOME IMPORTANT NUMBERS

The following statistics provide a sense of the magnitude of the work associated with the West Approach seismic retrofit project:

- Over 1.5 million lbs. of structural steel
- Over 3.2 million lbs. of reinforcing steel installed
- Over 106,000 cubic yards of concrete poured
- Approximately 750,000 lbs. of miscellaneous metal
- Over 60,000 cubic yards of excavation
- Over 10 million lbs. of pile casings
- 25,000 linear feet of piles
- Over 1.2 million person-hours of work on site

January 2008 - Concrete pour on the new eastbound deck. Over 106,000 cubic yards of concrete were poured during the construction of the project.

CONCLUSION

The success of the $429 million seismic retrofit and replacement was made possible through extraordinary teamwork between the Caltrans engineers, the contractor and subcontractors, the City and County of San Francisco, neighborhood and community groups, and the residents and businesses of the project area. Constant communication, cooperation, and non-stop hard work by all team members resulted in the successful completion of one of the most challenging projects in an urban setting ever attempted by the Department.

Finally, Caltrans extends a huge debt of gratitude to the more than 280,000 motorists who traverse the SFOBB each day. Your patience and understanding during the six years of construction is greatly appreciated.

September 2005 - The tertiary support system is being placed at bent 43. This "Superbent" spanned the entire width of the freeway at its widest point, and along with the system of hydralic jacks installed on top of this bent, was calculated to bear the weight of the structure.

Worker severing the first tendon at bent 43. These pretressing tendons were placed into the structure in the 1950's, when it underwent major upgrades.

PROJECT TEAM

SAN FRANCISCO-OAKLAND BAY BRIDGE

Toll Bridge Program Manager: Tony Anziano

Project Manager: Kenneth Terpstra

Structures Design Team:
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ITEM 5: OTHER BUSINESS

No Attachments